ADMINISTRATION REPORT

OF THE

PUBLIC HEALTH DEPARTMENT OF THE CITY OF PORT-OF-SPAIN

FOR THE YEAR

1958

BY

DR. RODERICK MARCANO, O.B.E. (Mil.), M.D. (Lond.), M.R.C.P. (Lond.), D.P.H. (Lond.)
MEDICAL OFFICER OF HEALTH

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WITH THE COMPLIMENTS

OF THE

MEDICAL OFFICER OF HEALTH

t-of-Spain,
Trinidad, W.I.

Local Authority in the Urban Sanitary District of the City of Port-of-Spain

1957-1958

THE CITY COUNCIL

His Worship the Mayor, Councillor Dennis Mahabir, J.P.

Deputy Mayor :

Councillor J. Hamilton Holder

Aldermen :

R. Coombs
G. Francis-Lau
Mrs. Sylvia Hunte
S. P. Mathura
J. Moore

Councillors :

J. Abraham
J. Foster
T. Franklyn
K. Fletcher
Miss A. Harper
J. Hachshaw
I. Merritt
L. Rostant
C. Roach
A. Sabga-Aboud
C. B. Tywang
E. Taylor
V. Woolford

Administration Report of the Public Health Department of the City of Port-of-Spain, Year 1958

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Public Health Department,
57/59, Frederick Street,
Port-of-Spain,
Trinidad, W.I.
28*th October*, 1959

URBAN SANITARY DISTRICT OF THE CITY OF PORT-OF-SPAIN

Secretary, Local Authority,

Sir,

I have the honour to submit for the information of the Local Sanitary Authority, the Annual Report on the health and sanitary condition of the Urban Sanitary District of the City of Port-of-Spain for the year ended 31st December, 1958.

No amount of euphemism will permit me to state that 1958 was a good year for the Public Health Department of the City, and though no noteworthy deterioration in the state of the public health of the City took place and no undue prevalence of any particular disease, particularly infectious disease, occurred, yet the maintenance of the *status quo* which happened to be the main preoccupation of the Department during the year under review, without the opportunity to go forward and improve, to undertake new projects and to put new plans into operation, which constitutes the main function of a Public Health Department, cannot be considered either satisfactory or satisfying. In fact even the maintenance of the *status quo* was not completely effective and though no serious setback in any particular direction can be recorded, the facts and figures here detailed indicate that the general all round improvement in the vital statistics of the Urban Sanitary District that one is led to expect year by year was not forthcoming. To what can this state of affairs be attributed? Two main causes are at work, viz: shortage of technical professional staff and the unsatisfactory sanitary condition of the congested, overcrowded, dilapidated, badly drained and unsewered sub-districts to the East of the Dry River. Shortage of the normal complement of sanitary inspectors has served to throw a great strain on the existing staff and what with inevitable periods of leave due to illness and vacation, the eighteen sanitary districts into which the City is divided for the purpose of the detection of nuisances in the course of house-to-house inspection have had to be manned by as few as fourteen to fifteen sanitary inspectors with consequent non-detection of nuisances at the earliest possible opportunity and their consequent delayed abatement, and the loss of efficiency that is the natural corollary to working under stress and strain.

The major works of drainage, road construction and of road widening, the re-laying out of lots, the provision of an adequate water supply, the reconstruction of dilapidated premises and the sewering of the area, to which I have been making constant reference, year after year, in the last twenty annual reports that I have written, have not yet commenced though there was good reason to expect that a start would have been made in the year under report. Without these major works no lasting improvement in the environmental hygiene of these areas, no permanent betterment of the lot of their inhabitants, and no positive amelioration in the state of the public health can be expected.

I must, however, repeat what I have stated in my last annual report that the signs are auspicious and I have every hope that it will not be long now before the Local Authority with the financial help, expert guidance, and active co-operation of the Central Government embark upon these very necessary works. In fact, as I write, surveys are being undertaken and plans for a better and more adequate water supply and for the major works of sewerage and drainage that I have referred to above appear to be actively under way. With the financial position of the Corporation greatly improved as a result of the Imrie Report which has been adopted and improved upon by the Central Government, and with the satisfaction and relief from frustration stemming from the regrading of the pensionable staff which is imminent now, it is possible to look forward to a period of general improvement in all aspects of the Corporation's activities made possible by the execution of long needed improvement works and the redoubled efforts of a contented and satisfied staff.

In two directions at least it is possible to look back at the year under report with a feeling of satisfaction of work well planned and efficiently executed. I refer to the work of the Anti-Mosquito Unit in its intensive campaign to rid the City of the yellow fever mosquito, and the work of the Health Education Unit in promoting the education of the citizens of the City in matters pertaining to health and so securing their co-operation in all plans and projects directed to the improvement of the public health. By the commencement of the last quarter of the year under review it was possible to record that all premises within the limits of the City had been sprayed with the insecticide, dieldrin, and that the objective of an *aedes* index of zero had been achieved, which if maintained for a period of a year would enable the City of Port-of-Spain to be removed from the list of places designated "yellow fever receptive areas" as compiled by the Pan American Sanitary Bureau which is the regional representative of the World Health Organisation, and would thereby eliminate a stigma due to the presence of these mosquitoes that is derogatory to the good name and reputation of the City, as the temporary capital of the Federation.

The Health Education Unit initiated and pursued actively in the year under report plans for the health education of the public by means of the well known and generally accepted health education techniques and no organised groups within the limits of the City failed to attract the attention of the Unit. It is satisfactory to be able to record that the attention and interest of the residents of every sub-district have been aroused and the thirst for health education in theory as well as in practice is now almost insatiable. It is not difficult to envisage how greatly the work of the Department can, by this means, be enhanced, how easy it can be to get necessary work done without resort to police methods and what a different approach and an improved technique in the solution of health problems can be thereby adopted.

As I have indicated earlier on in this report the vital statistics for the year under review cannot be considered to exhibit that general all round improvement that is to be expected every year with public health services functioning at a high degree of efficiency in a population and in an environment that demand a more improved state of public health, but it is to be noted that the figures themselves do not differ materially or significantly from those of the previous year except perhaps in the case of one well known rate and in those for two diseases or groups of diseases.

I refer to the infant mortality rate which increased from 46.44 per 1,000 live births in the previous year to 61.97 per 1,000 live births in the year under review, the death rate from diarrhoea and enteritis which increased from 29 per 100,000 to 49 per 100,000, and the death rate from diseases of the heart and blood vessels which declined from 264 per 100,000 to 229 per 100,000 in 1958.

The estimated population increased by 500 to 121,150 ; the birth rate declined from 2,735 to 2,592, and the death rate increased from 1,134 to 1,147 per 100,000 population.

For the rest the figures worked out practically the same as for the previous two years.

The Department is grateful to His Worship the Mayor, Aldermen and Councillors who comprise the Local Sanitary Authority for the interest they have displayed in the work of the Department and for the active help and ready co-operation they have at all times given to all plans and projects submitted by the Department for the improvement of the public health.

It has always been a source of great encouragement to every member of the Public Health Department to know that his work is being keenly scrutinized by the Local Authority, and that his efforts, exerted often under difficult circumstances are keenly appreciated. Thanks are due to the City Engineer's Department, the Water and Sewerage Department, the Town Clerk's Department, and the City Treasurer's Department with whose Chief Officers the Medical Officer of Health is always in close contact, and who have in the year under report, as they have always done, rendered the customary help and provided the necessary assistance, without which the work of the Public Health Department could not possibly be the success it is expected to be.

For this we are deeply grateful.

I have the honour to be,

Sir,

Your obedient servant,

RODERICK MARCANO
Medical Officer of Health

NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT

The position here is that a certain amount of work has been done to improve some of the adverse natural and social conditions which obtain in the City of Port-of-Spain, but only the surface of a very formidable problem has been and is being touched, and much more vigorous effort must be expended if those chronic evils of bad drainage, overcrowding and congestion, in the East Dry River Area especially, the bad and inadequate housing accommodation, the unsatisfactory and often inefficient disposal of faecal matter in the unsewered areas, the poverty and malnutrition of those in the lower income bracket, are to be tackled in a manner that indicates that they will eventually be eliminated.

We are grateful to the Central Government for their continued efforts to convert the Santa Barbara Ravine in the Belle Eau Road area of the City into a sanitary aqueduct conveying storm and sullage water from the outskirts of the City, through the Belmont sub-dirtsict and down to the Sea, but the slow piecemeal way in which this work is being done indicates that it will take a few years very well before the project can be considered an accomplished fact. In the meantime numerous and varied nuisances continue to arise as the work proceeds, and householders in this area who are not slow to ventilate their grievances make periodic complaints of mosquito nuisance, of accumulations of refuse and rubbish and of mounds of earth at various points along the course of the Ravine.

In the Cocorite Area a new deep and efficient drainage channel has been constructed commencing again from outside the limits of the City, but draining successfully low lying lands inside the City in the Harding Place area, and coursing down across the Western Main Road to the Sea. At the time I write Harding Place is now a well laid out area and sanitation here has undergone considerable improvement as a result of extraordinary works which have been undertaken by the Council, executed by City Engineer's Department, and completed in the early part of the current year.

But John John and Shanty Town remain in *statu quo* and again I have to record with disappointment and regret that these highly insanitary and shack-ridden sections of the eastern part of our City seem destined to live on forever. In nearly every recent report that it has been my privilege to write to the Council I have always reflected the most optimistic feeling that these areas are due to disappear at any moment now, yet, year after year, it never seems to materialise.

No addition to the size of the City was made during the year 1958 ; the acreage remained static at 2,550 acres with the King's Wharf and Dock Site reclaimed lands South of Wrightson Road comprising 168 and the Queen's Park Savannah 279, acres of this total acreage. The estimated mean population showed an increase of 500 souls, the actual figure being 121,150, as against the estimated mean figure of 788,600 for the population of the entire Colony of Trinidad and Tobago.

SANITARY CIRCUMSTANCES

Water

The water problems of the City of Port-of-Spain for the most part remained unsolved during the year under report. There was no substantial increase of volume to meet the growing needs of the various sub-districts of the City, in spite of the increasing demands for a more adequate supply caused by the yearly increase of population, a greater resort to the use of water, the result of increasing industrialisation, and a growing appreciation of the great value of water in domestic hygiene, the direct outcome of our health education programme. As can be expected certain sub-districts suffer more than others and like everything else, where and when the water is most needed, there and then the greatest shortage exists. The Belmont and East Dry River Sub-districts and certain parts of the City Proper are the hardest hit whilst St. James, Woodbrook, and St. Clair are by comparison fairly well served. This is because of the fact that these latter areas are for the most part supplied with well water coming from the Cocorite and St. Clair Wells whose supplies are fairly constant with comparatively little diminution in volume during the dry season, whereas the other sub-districts that I have mentioned receive their supplies from the river sources of the Maraval, St. Ann's and Cascade Rivers which undergo substantial fluctuation in quantity and quality throughout the year due to flooding in times of heavy rainfall, and to falling off of volume during the dry season of the year.

There was also during the year under report no improvement in the quality of the water in so far as initial purity was concerned. In fact we must take it that with every ensuing year the catchment areas of the river sources of supply get more and more contaminated due to encroachment on these areas by squatters and other desultory would-be householders who are in search of a spot on which to erect a building for dwelling purposes. This encroachment by squatters, by market gardeners, by fruit vendors, &c., must inevitably lead to the deposit of faecal matter in these areas which eventually finds its way into the river sources. We must face up to the fact that the quality of the water supply to the City of Port-of-Spain is deteriorating with each passing year and increasing demands are being made on the purification process, as represented by sand filtration and chlorination, to insure that a potable supply reaches the consumer's taps. In addition, seeing that the distribution

system is antiquated and inadequate and that the pipes in this system are not all above suspicion and vary in volume due to the fluctuating supply, it is to be expected that contamination from suction at loose joints and at leaks and pinholes due to rust is almost a certainty and a high residual chlorine must be maintained in the system to deal with any such contamination, if the householder is to be supplied with a potable product. It is therefore clear that the water supplied by the Municipality to the citizens of Port-of-Spain needs urgent attention both as to quantity and quality and that, if a calamity is to be avoided, this is a matter that can brook no further delay. The situation is a source of constant worry and anxiety to the Department and particularly to the Medical Officer of Health and the constant physical and mental effort involved in keeping a daily eye on the water supply of the City could easily lead to a prolonged stay in one or other of the Institutions devoted to the relief of physical or mental breakdown. This I have been repeating in nearly every annual report that I have addressed to the Council without so far any long-term positive or determined step being taken to put an end once and for all to this unsatisfactory state of affairs. That no epidemic of water-borne disease has taken place during all these years is no guarantee that it won't ever happen as the history of epidemics in other parts of the world has shown conclusively.

It is my duty to point out these facts to the Local Authority and I owe it to them to leave no doubt in their minds as to the existing state of affairs. It is fortunate that the Local Authority is fully seized of the existing state of affairs and that plans are being prepared and steps are being taken, if somewhat late in the day, to get rid of the unsatisfactory river sources and replace them by well or river water of a much better initial purity. I am hoping that, if and when the time comes for me to write the 1960 Annual Report, I shall be in a position to state that all the unsatisfactory river sources have been abandoned and the catchment areas have at long last been released for building and agricultural purposes.

Bacteriological Examination of Water Supply, 1958

Where Derived	No. of Samples taken	Results of Examination			
		Safe	Unsatisfactory (Presumptive B. Coli present)	Not safe without further treatment (Non-faecal) B. Coli present	Not safe without further treatment (faecal typo B. Coli present)
* Cocorite Wells	86	81	5	—	—
Docksite Wells (untreated)	67	52	13	2	—
† St. Clair Pumping Station	47	40	7	—	—
‡ St. Clair Well (untreated)	—	—	—	—	—
‡ St. Clair Well (treated)	48	47	1	—	—
Wharf Well No. 3 (untreated)	43	37	6	—	—
† Maraval Reservoir	47	42	4	—	1
§ Cascade Reservoir	93	89	4	—	—
§ St. Ann's Reservoir	156	139	17	—	—
Knaggs Hill Reservoir	45	43	2	—	—
Queen's Park Savannah Wells (untreated)	119	110	9	—	—
King George V Wells (untreated)	66	54	12	—	—
Laventille Reservoir	33	31	2	—	—
‖ Picton Reservoir	38	36	2	—	—
‖ Port-of-Spain General Hospital (Tap)	44	40	4	—	—
‖ 143, Charlotte Street	39	32	5	—	2
‖ 133, Henry Street (Tap)	44	35	8	—	1
† Saddle Road, La Seiva (Tap)	47	41	6	—	—
Masson Hospital (Tap)	45	38	7	—	—
Microbiological Institute (Tap)	47	42	4	—	1
Sanitary Laundry (Tap)	45	36	9	—	—
Furness Withy & Co. (Tap)	83	46	37	—	—
St. James (Taps)	24	18	6	—	—
Woodbrook (Taps)	36	34	2	—	—
City Proper (Taps)	46	36	10	—	—
East Dry River (Taps)	32	27	5	—	—
Belmont (Taps)	29	24	5	—	—
St. Clair (Taps)	31	26	5	—	—
Wells on Private Property					
Electric Ice Co., 3A Ariapita Avenue	46	45	1	—	—
Cannings & Co., 60–68, Richmond Street	92	89	3	—	—
	1,618	1,410	201	2	5

Standard of purity : B. Coli absent in 100 c.c.

* Chlorinated, not filtered.

† Filtered after chlorination.

‡ Chlorinated before distribution.

§ Filtered before chlorination.

‖ Filtered before chloramination.

Chemical Examination of Water

Samples Examined by Government Chemist, 1958

Where Derived	No. of Samples Examined	No. of Samples found safe
Picton Reservoir	36	36
Maraval Reservoir	11	11
Cascade Reservoir	12	12
St. Ann's Reservoir	12	12
Cocorite Pumping Station	10	10
Cocorito Pumping Station (for salinity)	213	213
Docksite Wells	13	13
King George V Park Wells	16	16
Queen's Park Savannah Wells	32	32
St. Clair Well	11	11
Wharf Well	10	10
	376	376

Drainage and Sewerage

Whilst some improvement was effected to the main drainage system of the City in the year under report, the sewerage system remained *in statu quo*. As I have stated earlier on in this report the Santa Barbara Ravine project was continued during 1958 and a substantial part of this project was completed, though much remains yet to be done, but it can be stated with conviction that the end is in sight and it cannot be long now before this irregular main watercourse, which commences outside the limits of the City and which has been the cause of so much nuisance due to stagnation of storm and sullage water and to the indiscriminate dumping of refuse and rubbish of all sorts on its banks and in its bed, is completely paved right up to its junction with the paved Dry River basin.

Residents of Harding Place in the Cocorite area are now assured of a tolerable existence with the completion of the Harding Place Scheme of which the paving of the Harding Place Ravine formed an integral part. Beginning in elevated lands outside the northern limits of the City this primitive ravine courses through Harding Place across the Western Main Road to the Sea and when in flood regularly overflowed its banks and caused the low lying lands of Harding Place to be a veritable quagmire which kept the area damp, encouraged the breeding of mosquitoes, and created a variety of other nuisances to the annoyance and ill health of the residents of the area. With the deepening and paving of this natural watercourse, the nuisances referred to above have been abated and Harding Place is now in good sanitary condition.

Other natural watercourses in the East Dry River Area still remain in their original primitive condition and cry aloud for widening, deepening, and paving, and these very necessary works have been rendered more urgent by the completion and the opening to traffic of the Lady Young Road seeing that it is inevitable that storm and flood waters find their way from the highlands in the vicinity of this highway to the low lying lands in the Belmont and East Dry River areas. Of these, none is more urgent than the La Peña Ravine project designed to rid the John John, St. Joseph Road, South Quay, and the Eastern Main Road area of the regular flooding that is the cause of so much dislocation of traffic in these areas during the rainy season.

I report with regret that no extension of the City's sewered areas took place during the year under report and that the Belmont, East Dry River, St. James and Cocorite Sub-districts remained the seat of faecal stagnation such as they were ever since they have been included within the limits of the City, the former with privy cesspits often cheek by jowl with dwelling houses and emanating a peculiar nauseating aroma that strikes the visitor with shattering force, but to which, strange to relate, the residents of the area appear insensitive and immune, and the latter with privy cesspits, cesspools and septic tanks that riddle the underlying sub-soil, in many cases, with unpurified faecal deposits and seriously contaminate the high underground water.

Faecal matter that is not immediately removed from houses or the vicinity of houses, especially if subjected to no purification process, such as obtains in septic tanks, is a potential menace to the health of the occupiers of these houses and it is not to be wondered at that these areas supply the bulk of the cases of typhoid fever, dysentery and particularly diarrhoea and enteritis of children that are reported to the Public Health Department. Add to this the difficulty experienced in getting these conservancy systems to be emptied with the promptness and efficiency that the situation demands and the high cost to the burgesses of so doing, it is clear that here again lies a grave problem that must be tackled forthwith and effectively eliminated by the laying down of a water-borne sewerage system. I need hardly state that the laying down of a sewerage system entails the provision of an adequate water supply, the clearing of slum areas and the reconstruction of dilapidated dwelling

houses, but I have no doubt that with a sewerage system laid down in these sub-districts, the slum areas will be more speedily eliminated and owners of dilapidated property not capable of or worth connecting up with, a sewerage system would immediately proceed to reconstruct their property for which I know plans have, in the majority of cases, been prepared and approved, and which is the ardent desire of nearly every owner in these areas, if only alternative accommodation could be found for the tenants of these houses.

Scavenging and Refuse Disposal

The service of scavenging and refuse disposal ranks high in the list of public health measures undertaken by the Municipality and a moment's reflection will serve to indicate the absolute necessity of having this service fully and efficiently performed. If refuse and litter were allowed to accumulate on the premises of householders and in the streets and slipper drains, it would not be long before sullage and rain water accumulated in quantities sufficient to enable the breeding of mosquitoes to take place and rats would roam openly about the City in their search for food. Apart from the discomfort associated with mosquito and rat nuisance, diseases caused by mosquitoes and rats would gain a foothold and epidemics of yellow fever and plague would decimate the population. This service, therefore, is of paramount importance to the health and welfare of the citizens of Port-of-Spain and is consequently among the first preoccupations of City Engineer's Department to which this work is committed.

For the purpose of scavenging the City is divided into divisions known as the Eastern, Central, Western and St. James Divisions, and the sweeping of streets and the cleaning and flushing of underground drains are undertaken by gangs of scavengers under the supervision and control of foremen, who in turn are directed, advised, and assisted by sub-overseers and overseers, all under the care, direction and control of an engineer of the Department. The refuse arising from the work of these operatives and that deposited in bins, boxes, cartons, &c. by householders, is collected by the scavenging trucks and carts and conveyed to the Eastern Dump where it is disposed of by the method of " controlled tipping ". This work begins at night about one o'clock in the morning and it is usually completed by nine to ten in the morning. Premises in the hilly areas of the City, particularly those that are situated in the northern and eastern limits, are scavenged by female labourers who begin their work round about five o'clock in the morning, collect the refuse accumulated by householders in these areas in large flat-bottomed pans and head it down to the low lying areas in the route taken by the scavenging trucks, where it is in turn collected and removed by these trucks to the Eastern Dump where it is disposed of. It cannot be denied that on the whole the City is kept tolerably clean by those engaged in this service, but there is yet much leeway to be made up before one can feel satisfied that the service is being performed in a completely satisfactory manner. First there is the householder who must be persuaded by education, and sometimes by force, to co-operate with the Public Health Department and the Transport Train by providing himself with a regulation dustbin which must be put out in the morning not later than eight o'clock at a point within the gateway; on no account should he litter the streets, drains and footway with refuse ; on no account must he substitute for a proper bin, as defined by the regulations, an old pan or box or carton ; but these latter will certainly be collected, *not emptied*, by the scavenging carts and taken to the Dump where they will be disposed of in the same way as ordinary refuse is disposed of. The regulation dustbin, and the regulation bin only, will be emptied of refuse into the scavenging trucks and returned to the owner. Second, there is the scavenger who must be persuaded by education and exhortation and sometimes by other more effective measures to co-operate with the householder by being courteous and polite at all times and not to resort to aggression either by rude and offensive remarks or by wanton destruction of bins which have been bought at no little cost. The scavenger must collect and deposit refuse and litter into the trucks, and on no account whatsoever must he dispose of refuse by throwing it into the underground drains, such as he has been known to do. This will only serve to block them and cause the remains of storm and sullage water in them to stagnate with the consequent creation of nuisance.

Third, the drivers of the scavenging trucks must be persuaded, and at times ordered and directed to keep their trucks covered and not to deposit refuse or scatter dust all along the route they are travelling, to the annoyance of pedestrians and householders. The trucks are provided with movable covers and these covers must be made to do the work for which they were provided.

In the hilly areas the female scavengers and drivers must synchronize closely their respective duties so that all heaps of refuse are picked up and deposited in the trucks and accumulations do not occur after the trucks have finished their work for the day, to be left at the mercy of dogs, cats and rats during the rest of the day and during the night with the consequent creation of nuisance that this entails.

But it is my duty to record that these various points are fully seized by the Manager, Transport Train and every day we can see definite improvement in the scavenging service and that more and more gaps and loopholes are being stopped. With new and improved types of trucks, and with a greater sense of responsibility on the part of the workers in this service, with a greater appreciation

of the importance of this work, the part it plays in the welfare of the citizens of the City, and with the determination to leave no stone unturned to modernize the service with the newer knowledge and better equipment, the ideal of a perfect service is within the reach of practical possibility.

The Eastern Dump

The Eastern Dump is now under effective control and " controlled tipping " for which this Department has been clamouring so long is now being actively prosecuted. The bulldozer which was donated to the Municipality for the specific purpose of adopting the time-honoured method of " controlled tipping " at the Dump is now doing the work for which it has been provided and the reclamation of areas of low lying ground covered with sea water behind the rubble wall, which was constructed many years ago, is now proceeding apace as the advancing tongue of deposited and compressed refuse reaches out to the sea. The necessary layer of dirt is deposited at the end of each day's work for the specific purpose of preventing the occurrence of mosquito, fly or rat nuisance, and as layer after layer of refuse is deposited and dealt with in this way, the advancing edge of the Dump continues to deepen and grow wider with each succeeding day and a considerable area of land is thereby reclaimed.

The Beetham Highway, otherwise known as the Swamp Road, which now traverses the Dump and has bisected it in such a way that the area to the South of the highway is now indeed and in fact the Dump i.e., the area where dumping is actually taking place, has had the salutary effect of putting a brake on the activities of the dwellers of Shanty Town which have been one of the main causes of the failure of the measures designed to prevent nuisance. These Shanty Town dwellers were notorious for their regular depredations on the Dump, digging up covered areas in search for salvageable materials, swarming and invading the trucks as they arrived at the Dump, and ridding them of any worthwhile material capable of being sold or being used for the keeping or feeding of pigs. The workers on the Dump can now perform their daily tasks without much hindrance and the guardians of the law that now patrol the area can do their duty without fear of being assaulted or attacked with lethal weapons such as used to occur before Shanty Town became so exposed to the glare of traffic and to the view and scrutiny of all and sundry. It will not be long now before the reclamation of the whole area behind the existing rubble wall will have taken place considering the pace at which it is now proceeding, but fortunately there are other areas further East that can be subjected to similar treatment and where the disposal of refuse by the method of " controlled tipping " can usefully be resorted to, and I need hardly repeat what I have stated often before that as long as there are such low lying areas, depressions, and excavations to reclaim, the disposal of refuse by the method of " controlled tipping " is far and away the best, the cheapest, and most economical method of disposal and should be the first method of choice by Local Sanitary Authorities.

SANITARY INSPECTION OF THE DISTRICT

Premises and Occupations controlled by Bye-laws and Regulations

Food

Ever since the Bye-laws with respect to the Sale of Foodstuffs were adopted by the City Council on the 22nd day of April, 1937, approved by the Central Board of Health on the 9th day of August, 1937 and confirmed by the Governor-in-Council on the 24th day of August, 1937, the Public Health Department has been making a determined attempt to enforce these bye-laws and to improve the standard and quality of foodstuffs that are prepared and sold within the limits of the City. It has been a steady uphill task beset with numerous difficulties associated with the lack of education of the vendors of foodstuffs, their general poverty in the majority of cases and the consequent inability to provide themselves with the necessary equipment to protect foodstuffs against contamination, to provide the necessary clothes and uniforms, to get the medical attention necessary to put their bodies in good sanitary condition and so prevent foodstuffs being prepared or sold from being contaminated with the germs that inhabit dirty hands and bodies and septic mouths and noses. Of these latter the itinerant vendors comprise far and away the largest number and short of putting this type of vendor completely off the road, it does not appear that rapid progress is likely to be made. The majority of these people, after having " tried their hands " at all trades and occupations in their effort to make a living and having for one reason or another failed, as a last ditch effort resort to the preparation and sale of foodstuffs and needless to state they are completely oblivious of the elementary laws of hygiene as applied to themselves, far less as applied to the foodstuffs they are trying to sell to eke out a living. In spite of all our efforts at persuasion, in spite of all our efforts at compulsion by resort to the process of law, foodstuffs exposed to dirt, dust, insects, flies and vermin are the order of the day, and at special seasons such as at Xmas or Carnival, these vendors are even provided with extra facilities by way of prepared sites for plying their trade, little regard being paid to what kind of foodstuffs they are selling and under what conditions of contamination their wares are exposed for sale. It is not to be wondered at, that in these circumstances, these privileged vendors pay little regard to the instructions given by Sanitary Inspectors or to the directions of the Public

Health Department and continue to expose and sell their foodstuffs under the most primitive conditions. If only the toll of morbidity and even mortality taken by foodstuffs sold under such conditions and consumed at home or in public places, in the way of inflamed stomachs or irritable intestines, could be set down in figures, the time lost and suffering experienced would add up to a formidable total. Still it cannot be said that the picture is that black in every respect. The regular and permanent itinerant vendors do make an effort to comply and do succeed in complying in large measure with the provisions of the bye-laws by providing themselves with covered trays and clean aprons and uniforms, but here again the difficulty lies in the lack of equipment that is within the pocket of this type of vendor and at the same time gives the prospective purchaser an opportunity to see and examine the foodstuffs that he would like to purchase, without exposing the article to contamination in the process.

In so far as shops, parlours, restaurants, hotels, &c., are concerned, we cannot record the same degree of disappointment with the results of our efforts. The newer and more recently built shops, parlours, restaurants, are made to show the necessary fixtures and equipment when plans are being passed, and even in the older food places or in a food place converted into such from a dwelling house or other building it is possible to get proper cleansing equipment, enclosed cupboards, running water and a proper sanitary kitchen.

The struggle with the old improvised foodshop in some obscure hole in an old dilapidated dwelling or in the space originally left between old dilapidated dwellings continues, but as long as slum areas persist in the City and particularly in the down-town areas of the City it is going to be very difficult to deal with this type of foodshop except by complete closure, which magistrates are extremely loath to do. In the meantime these particular shops, parlours and restaurants do a thriving business and cater to a large variety of people who frequent the down-town areas of the City in the course of their work, and who perforce have to partake of food, whose only value to the economy seems to be that it invariably succeeds in making more work for the doctor.

Sale of Foodstuffs Bye-laws

Registration of Shops, Etc. (1958)

Provision, Meat, and Spirit Shops, Restaurants, Hotels, Refreshment Parlours	279
Ground Provision and Fruit Shops	17
Bakehouses	5
Confectionery Shops	1
Aerated Water Factories	1
Other Factories	9
Total 1958	312
Total 1957	275

Registration of Vendors (1958)

Bread and Cakes	41
Confectionery	39
Cooked Food including Fries, Souse, &c.	52
Ice Cream and Palets	24
Sweet Drinks	37
Vegetables, Greens, Fruits	110
Miscellaneous	71
Total 1958	374
Total 1957	542

No. of Badges issued to Itinerant Vendors	359	(473—1957)
No. of Oyster Vendors Licensed under Sale of Oyster Bye-laws	3	(4—1957)

Sale of Milk Bye-laws

Dairies and Milk Shops (1958)

Sub-Districts	*Cowshed Licences Issued*
City proper	—
East Dry River (Unsewered)	—
Belmont (Unsewered)	—
Woodbrook (Sewered, but premises not all connected with the Sewerage System)	—
St. James (Unsewered)	2
Total 1958	2
Total 1957	5

Dairymen's Licences (1958)

Dairymen's Licences issued to Cowkeepers and other purveyors of milk...	2
Dairymen's Licences issued to Shops, Milk Bars and Refreshment Parlours	38
Total 1958	40
Total 1957	40

Milk Vendors' Licences and Badges (1958)

	Milk Vendors' Licences	*Cows Tuberculin Tested*	*Badges*
Port-of-Spain	40	174	5
Out-Districts	—	—	—
Total 1958	40	174	5
Total 1957	50	324	16

FOODSTUFFS SEIZED OR SURRENDERED AND DESTROYED—1958

Under Part X of the Public Health Ordinance, Ch. 12. No. 4.

Bacon	...pounds	...	3,505	Jam	...pounds	...	30
Boans (dried)	...pounds	...	1,600	Macaroni	...pounds	...	369
Beef (picklod)	...pounds	...	600	Meat Products	...pounds	...	1,456
Biscuit	...pounds	...	282	Milk (canned)	...pounds	...	570
Butter (canned)	...pounds	...	18	Milk (powdered)	...pounds	...	8
Butter (peanut)	...pounds	...	566	Mushrooms	...pounds	...	137
Cake	...pounds	...	2	Nuts	...pounds	...	25
Cereals	...pounds	...	163	Onions	...pounds	...	26,050
Cheese	...pounds	...	845	Peas (canned)	...pounds	...	52
Cheese (canned)	...pounds	...	20	Peas (dried)	...pounds	...	18,302
Chewing Gum	...pounds	...	13	Pork (pickled)	...pounds	...	1,503
Chicken (frozen)	...pounds	...	8,727	Potatoes	...pounds	...	183,698
Confectionery	...pounds	...	279	Pudding	...pounds	...	12
Cornmeal	...pounds	...	3,400	Salt	...pounds	...	36,410
Eggs	...pounds	...	1,440	Sauce	...pounds	...	20
Fish (cannod)	...pounds	...	58	Sausage (smoked)	...pounds	...	3
Fish (smoked)	...pounds	...	1,026	Sausage (canned)	...pounds	...	272
Fish (dried)	...pounds	...	1,080	Soup (canned)	...pounds	...	77
Flour	...pounds	...	35,100	Sugar	...pounds	...	10
Foodstuffs, Miscellaneous (canned)	...pounds	...	6	Tomato Paste	...pounds	...	180
Fruit (canned)	...pounds	...	161	Tomato Puree	...pounds	...	42
Fruit (dried)	...pounds	...	4,022	Tomato Sauce	...pounds	...	10
Fruit Juices	...pounds	...	25	Vegetables (canned)	...pounds	...	193
Gelatine	...pounds	...	6	Vegetable Juice	...pounds	...	29
Ham (smoked)	...pounds	...	926	Vermicelli	...pounds	...	20
Ham (canned)	...pounds	...	3,064	Yeast	...pounds	...	2,900

Anti-Rat Measures

Of the many and varied functions that the Public Health Department is called upon to perform, second to none is the campaign designed to eliminate and abate rat nuisance and to reduce the rat population to innocuous proportions, if not to eradicate it altogether as some authorities maintain that it is impossible to do. Very early, after the establishment of the Local Sanitary Authority in 1917, the existence of rat nuisance and the damage done to property and foodstuffs by the undue prevalence of rats made it imperative to organise a unit to deal with the large number of rats and mice which infested the Urban Sanitary District, and ever since, the Anti-Rat Unit has formed an integral part of the organisation of the Department and anti-rat measures have been, year in year out, vigorously prosecuted. At first the operatives of the Unit because of their limited numbers had perforce to confine themselves to those areas where rat nuisance was at its maximum, i.e., in hotels, restaurants, shops, parlours and food places generally, in the large warehouses where foodstuffs were stored and seeing that the great majority of these places were to be found in the City Proper, the work of the Unit was performed mainly in this sub-district. As conditions in this sub-district improved and as the availability of funds permitted the numbers of these workers to be increased, because of the large number of complaints which residents at the periphery of the City were making due to the invasion of the City by rats from the contiguous suburban areas, the Unit was organised to serve every sub-district of the City and today there is no section of the City which is left unattended and to which a rat gang is not assigned. Every sanitary district of the City—and the City has been divided into eighteen sanitary districts—has a supervisor and three or four men working in it, attending to complaints of rat nuisance, looking for evidence of rat nuisance, and when found taking the necessary measures to abate the nuisance. House-to-house inspection is the order of the day and this is usually undertaken in the afternoon after the result of the previous day's work has been ascertained and assessed, complaints attended to, and fresh bait—prebait, post bait or poison bait—laid. The men attached to this Unit have, of course, to undergo a preliminary period of training as to the evidence of rat nuisance, the methods to be employed in detection of rats, the identification of species of rats, the use of and dangers associated with, the various poisons that are kept in the Department, the kinds of traps and their use, as well as in the method of making up the various forms used for recording results.

No new poisons were used or experimented with during the year under report. Warfarin continues to be our sheet anchor and there is no evidence yet available to suggest that the rat population has been able to detect that this substance is lethal to them, or that they have grown tired of eating this "poison" bait. It becomes necessary on occasions to resort to the use of zinc phosphide or arsenious oxide whenever a major operation is contemplated and a preliminary quick knockdown, the objective, such as when frequent complaints have come in from a block of buildings or a series of flats but it is customary to follow this up with a further operation based on the use of warfarin.

It is regrettable that the value of this service is not as greatly appreciated outside the limits as it is within the limits of the City, seeing that as yet no properly organised anti-rat units have been organised by the Local Sanitary Authorities of the areas that are contiguous to the City, but no public health officer can afford to be complacent about the potential danger to the community that a large rat population presents.

Destruction of Rats and Mice, 1958

Rats caught by trappers	31,396
Rats bought	—
Total	31,396
Mice caught and destroyed	24,240

Examination of Rats by Government Bacteriologists

Rats examined for plague	31,396
Rats found infected with plague	—
Immature rats not examined	—

Species

	Decumanus	*Rattus*	*Total*
Males	9,112	1,156	10,268
Females	17,748	3,380	21,128
Total	26,860	4,536	31,396

CHART A

Port-of-Spain

Aedes Larval Index 1948 — 1958

Anti-Mosquito Measures

The work of the Unit directed to the elimination of mosquito nuisance continued unabated in the year under report and the intensive drive, which has been undertaken during the past three years with the specific objective of eliminating the *aedes aegypti* species of mosquito, the carrier of the virus of yellow fever, and which stemmed directly from the outbreak of yellow fever in certain " jungle " areas of Trinidad and the occurrence of a case of urban yellow fever in the peripheral limits of the City, was vigorously prosecuted. Nothing was permitted to interfere with the campaign and the operatives of the Unit responded manfully to the call made on their perseverance, their conscientiousness, and their loyalty. The result was that by the beginning of the last quarter of the year under report an *aedes* index of zero was recorded and at the time I write that index has been maintained throughout the current year. It is a matter for gratification that this achievement has been possible seeing that for years efforts had been made by the Department to reduce the *aedes* index, but no sooner had it been brought right down to zero and almost to zero in some areas, because of the development of resistance to the DDT formulations which we had previously been employing, up it went again, *aedes* mosquitoes grown resistant to DDT mutiplying and reinfesting the area. Round about the middle of 1957 it was decided to resort to a new insecticide, dieldrin, which had not been used before to any great extent in Trinidad, and to this poison *aedes aegypti* was completely susceptible and still remains so to this very day. We were thus able to spray the various sub-districts of the City with a powerful insecticide, and every premises vacant or occupied were subjected to house-to-house spraying or to perifocal treatment by operatives working in yards, vacant premises, and open places. By the end of the year 1958 nearly every single building, dwelling or business place, was treated and in the current year only mopping-up operations had to be undertaken.

At the moment I write house-to-house spraying has come to a standstill, but the perifocal work continues and checking and rechecking by means of house-to-house inspection constitutes the bulk of the anti-*aedes* work being done.

If, however, the anti-*aedes* work has met with very gratifying success, not the same can be said to any great extent in so far as the anti-culex work is concerned. Culex mosquitoes are still very prevalent in the Urban Sanitary District and stagnant pools, blocked underground drains, watery cesspits and accumulations of dirty water still abound with consequent breeding of culex mosquitoes. Especially are they frequent when in the dry season underground drains are not flushed regularly because of shortage of water and when refuse is deposited in them by recalcitrant householders or unscrupulous scavengers. At the height of the rainy season when heavy downpours are frequent and these drains and other collections of water are flushed out fairly regularly, opportunities for stagnation and consequent breeding of culicines are restricted and mosquito nuisance is at a minimum. It is clear that a reorientation of the work of the Department must take place in that greater attention will have to be devoted to the elimination of this species of mosquito for which an effective and cheap insecticide innocuous to human beings and other animals is anxiously awaited. The Department will perforce have to gear itself to the execution of works connected with the clearing and flushing of drains, to the filling and elimination of pools, the levelling of depressed areas, the construction of water tight cesspits, &c., if the Urban Sanitary District is to be freed completely of mosquito nuisance. That this can be done is almost certain, but seeing that works of an engineering and cleansing nature are involved much more effort will have to be expended in this direction, and much more effective co-operation and collaboration between the Public Health Department and City Engineer's Department will have to take place.

Larval Index

		Premises with mosquito larvae per cent. of number visited
Yearly average	1938-1942	2.1
Year	1943	3.3
	1944	5.4
	1945	6.9
	1946	7.3
	1947	5.8
	1948	4.4
	1949	4.4
	1950	4.6
	1951	4.5
	1952	3.8
	1953	4.8
	1954	1.5
	1955	0.6
	1956	0.6
	1957	0.2
	1958	0.08

Inspection of Eaves Gutters, Etc., 1958

Number of inspections of premises	134,054
Number of inspections of eaves gutters	33,560
Number of occasions found in good order	32,839
Number of occasions found defective	721
Number of occasions found containing water only	693
Number of occasions found containing water and larvae	28
*Number of occasions mosquito larvae were found in tubs, antiformicas, tin cans, &c.	101
Yards cleared of receptacles	12,920

N.B.—*Occasions on which mosquito larvae were found by sanitary inspectors, during the course of 88,603 inspection of premises, are included in above figure.

Premises used for human habitation, Houses let in Lodgings, Common Lodging Houses

The housing situation in the City of Port-of-Spain continues to be a source of worry and anxiety to the Public Health Department and nothing substantial in the way of amelioration during the year 1958 can be recorded. In fact only few dwelling houses for occupation by members of the working class or for that matter for any class at all were built in the year under report and whilst houses on the basis of either aided self-help schemes or on the mortgage-rental plan of Government continue to spring up in the Champs Fleurs and Morvant Areas not very far away, such schemes are conspicuous by their absence within the limits of the City or its immediate environs. This is not saying that the City has been excluded from such schemes but difficulties associated with lack of suitable lands on which to build, the overcrowding of the slum areas of the City, the influx of population from the country areas and from other neighbouring islands, the number of homeless white-collared workers, &c., complicate the housing problems of the City and make their solution no easy matter. In addition to the number of barracks which still exist in the City Proper, particularly in the down town areas, and in parts of Woodbrook and Belmont, buildings which were once occupied as cottages have now been converted into barracks without the necessary sanitary conveniences usually provided in barracks, and nowhere is this more apparent than in the Belmont and East Dry River Sub-districts, an unsewered area served mainly by privy cesspits with a few old septic tanks and cesspools. These buildings constructed many years ago have deteriorated materially with the passage of time and are in many cases on the point of collapse ; in fact there is hardly a week that passes without one or other of these old buildings collapsing throwing, occupants out of house and home. As things are at the moment it is true to state that the number of old dilapidated buildings within the limits of the City has now reached the point where only a major clearance scheme can solve the problem of inadequate and insanitary housing accommodation. The war between landlords and tenants which has been going on during the past ten years continues to be waged and it is not difficult to understand that a landlord who is prepared to reconstruct his premises and for which plans have already been approved will not promptly and willingly execute any works to an old building, even though they be of a minor nature designed to secure only a tolerable sanitary existence on the part of the tenants. And so it is that nearly every Notice served by the Department to stop leaks, repair surface drains, replace broken or unserviceable flush tanks, has to be pursued to its finality in the law courts before compliance can be secured. The work of the Department is thereby rendered particularly onerous and the worry and anxiety associated with the existence of infectious disease in these shacks and hovels and the ever present possibility of rapid spread leading to an epidemic add considerably to the difficulties of the situation. It may strike the visitor that the City is humming with building activity and that may be true to a certain extent but the activity that is apparent in the City is mainly in the business section where new and modern business places are springing up, but hardly any dwelling houses are being built and the odd few that are going up are soon snapped up by foreigners who are in a position to pay the large rentals that are charged. Members of the working classes and especially that much neglected section of the working classes, the middle class, are sorely tried in these difficult circumstances and some of the rooms and buildings they occupy must be seen to be believed.

The Planning and Housing Commission continued their activities in the year under report but more effort appeared to be expended on the maintenance of existing Commission property than on the building of new dwellings or flats. Blocks of flats in the Nelson Street and George Street Areas have gone up and some accommodation has been provided for displaced persons but I need hardly state that much more is needed and that quickly, if the potential danger of a disastrous housing shortage is to be avoided.

John John and Shanty Town

These two slum areas to which I have made so much reference in previous reports and in regard to which I have in my last report entertained the hope that the year 1958 would have seen the beginning of their end, continued their uninterrupted existence in the year under report, and in some directions actually underwent some expansion in that new shacks were actually erected in the Shanty Town area by would-be occupants, though it is gratifying to record that many more were actually demolished when it was apparent that their new occupants were endeavouring to settle down in

Shanty Town with a view to staking a claim for alternative accommodation when the area was due to be cleared. Now that the Swamp Road has been completed and opened to through traffic, the rear of Shanty Town has become exposed in all its stark nakedness and it is now clear to all that herein lies a running sore, devoid of the most elementary sanitary requirements, and seething with potential danger to the rest of the adjoining area of the City and in fact to the City as a whole. With the extension of existing business places East of the Fish Market and with the establishment of others approved by the Central Government, that portion of Shanty Town that is within the limits of the City is growing smaller and smaller, and now that the Industrial Development Corporation has earmarked the reclaimed lands in this area for the setting up of pioneer industries, fewer and fewer shacks and hovels will be permitted to survive and already these dwellers are seeking "fresh fields and pastures new."

John John in the hills beyond St. Joseph Road continues to thrive and no major works of any kind were undertaken in the year under report in this area. The flooding of the La Pena Ravine in this area makes life here almost unbearable whenever heavy downpours occur in the rainy season, but the existing shortage of housing accommodation makes this area attractive to the people who have been displaced by the substitution of business places for dwelling houses in the contiguous down-town areas of the City.

The water supply here is by means of a standpipe supply, and faecal disposal is by means of primitive privy cesspits, yet because of the location on a hillside not far from the sea it is possible to eke out a tolerable existence in the fresh air and the open spaces which obtain here and which are lacking in the more central and congested parts of the City Proper.

THE HEALTH EDUCATION OF THE DISTRICT

In my last report I referred to the fact that organised health education is now among the most important and at the same time the most essential of the functions that a Public Health Department is called upon to perform, and that a Health Education Unit forms an integral part of the organisation of such Department. In all modern cities health education progresses *pari passu* with the work of detecting and abating nuisances, with the elimination of infectious disease and the prevention of its spread, with a clean food campaign, with insect pest control, and other similar activities usually undertaken by a Public Health Department. Health Education adds materially to the success of each activity because where there is a lack of understanding, where there is little appreciation of the reasons for certain public health measures and where there is doubt as to the value of the objective that it is sought to attain, little co-operation can be expected from those on whom and among whom the necessary measures are to be applied. With understanding and appreciation, collaboration and co-operation are immediately forthcoming and united efforts make it comparatively easy to effect the improvement that is sought.

And so starting in 1956 with limited resources, the Health Education Unit of the Department has been growing gradually in size and importance and I am pleased to be able to report that more and more constructive and productive work is being done by this Unit to the lasting benefit of the work of the Department as a whole and to the greater welfare and happiness of the residents of the City.

In the year under report the Unit was able to procure its own 16 mm. projector but we are still without our film library and we are still dependent on the good offices of the Health Department of Government, the United States Information Service, the Caribbean Commission, the British Council, the Information Office of Government and the United Kingdom for the use of their films and particularly of the Health Department of Government for the use of their Mobile Cinema Unit, to whom we are deeply grateful and to whom the Local Sanitary Authority send their thanks for their ready co-operation and their active collaboration. It is sincerely to be hoped that the Unit will be fully equipped by the time I am called upon to present my next annual report, seeing that provisions have been made in the 1959 Estimates and the Estimates have now been approved by the Central Government.

In the year under report the work of the Unit was organised along the usual lines detailed in my 1957 report, i.e. by organising the voluntary welfare bodies of the various sub-districts to deal with health education matters, by keeping in touch with all organised groups in the City, such as Trade Unions, Friendly Societies, &c. by addressing these bodies on matters connected with health education and by initiating discussions with them and arranging film shows, lectures, the distribution of leaflets, &c. in their respective districts and to their respective groups. Special health education projects were " Keep the City Clean " drive, undertaken just before the inauguration of the Federal Parliament on 22nd April by the Princess Margaret, in which we were fortunate in getting the co-operation, advice and active collaboration of the Junior Chamber of Commerce to whom we tender our grateful thanks. A special feature of the drive was the motorcade which formed an integral part of the drive and which was designed to get the citizens of Port-of-Spain to appreciate the fact that the City was the temporary capital of the Federation, and that a determined attempt should be made to keep the City clean at all times and to get rid of the insanitary habit of throwing refuse in the streets and drains. In October, 1958, the Mayor opened an exhibition of electrical fittings and appliances at the Trinidad and Tobago Electricity Commission Headquarters on Frederick Street in which the Health Education Unit took an active part in demonstrating the value of the refrigerating and heating power of electricity in a clean food campaign.

VITAL STATISTICS OF THE DISTRICT

Comparative Summary of Vital Statistics

(Unless otherwise stated, rates are per 100,000 population)

	1921	1956	1957	1958
Area of City—acres (pastures and open spaces included)	1,793	2,550	2,550	2,550
Estimated population (mean)	61,386	120,000	120,650	121,150
Density of population (persons per acre)	34.2	47	47	47
Total live births	1,687	2,621	2,735	2,592
Birth rate	2,728	2,184	2,267	2,139
Still births registered	154	67	78	66
*Still birth rate	91.3	25.56	28.52	25.46
Total deaths	1,659	1,120	1,134	1,147
Death rate	2,683	933	940	946
Natural increase of population... ...	28	1,501	1,601	1,445
Death under one year	287	158	127	171
*Infant mortality rate	170.12	60.28	46.44	61.97
*Maternal mortality rate	—	4.19	1.46	3.85
Death Rates :				
Notifiable infectious diseases	621	71	80	62
Pulmonary tuberculosis	249	11	11	7
Tuberculosis (other forms)	26	2	—	2
Enteric fever	125	—	—	2
Pneumonia (all forms)	197	56	69	49
Bronchitis	136	10	16	14
Diphtheria	2	—	1	2
Malaria	89	1	—	—
Syphilis	21	15	11	14
Diarrhoea and enteritis	191	47	29	49
Influenza	26	1	6	1
Ankylostomiasis	15	—	—	—
Bright's disease and nephritis	209	22	17	18
Diseases of the heart and blood vessels ...	265	239	264	229
Diseases of the nervous system including cerebral haemorrhage	170	132	149	136
Cancer and other malignant diseases ...	63	87	84	98

Acreage and Population

The acreage of the City remained at the figure 2,550 where it has stood since 1949, when the 168 acres of the King's Wharf and Dock Site Area and the reclaimed lands South of Wrightson Road were included within the limits of the City by an Ordinance enacted in the latter part of that year, after a long but eventually successful fight with Government to define the southern boundary of the City as the " Sea wherever it is and wherever it is likely to be in the future." In the year 1917 when the Local Sanitary Authority was established the City comprised 1,793 acres which included the 279 acres of the Queen's Park Savannah ; the City has therefore increased in size by 757 acres in 41 years. An attempt was made in the year 1955 to extend the City at its northern limit by the inclusion of the Sub-district of St. Ann's and Ellerslie, part of Maraval, and part of St. James and Cocorite which are now outside the City, and a resolution to that effect was actually passed by the Council, but these proposals found no favour with the Central Government and the residents themselves of these areas were reluctant to be included, for fear of the increased rates and taxes that might have been involved to provide the amenities that residents within the City enjoy.

The mean population, i.e. the population at midnight 30th June, 1958, was estimated to be 121,150 as against 120,650 in the previous year, an increase of 500 souls. It is stated that this represents too high a figure for the resident population of the City seeing that more and more people are moving out of the City to reside in the various suburbs adjoining even though they continue to work in the City and to enjoy the amenities of the City and for whom the services of the City have perforce to cater. The census population of the City was found to be as follows : in the year 1921, 61,580 souls ; in the year 1930, 70,334 souls ; in the year 1946, 93,198 souls. A census is due to be taken next year, i.e. 1960, in the whole of the British West Indies when correct figures will be available and the various rates which depend on the population figure corrected. The estimated mean population of the Colony in the year under review was 788,600 which gives the City a percentage of 15.36 of the population of Trinidad and Tobago.

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* Per 1,000 births.
Census population of City—April, 1946 : 93,198.
Colony's mean population : 788,600.

CHART B
Port-of-Spain
Birth Rates & Death Rates per 100,000 Population 1920-1958

* Adjusted Rate (1955): Births and Deaths of City Residents only

CHART C

Port-of-Spain

Percentage Distribution of Deaths in Sub-Districts of the City 1958

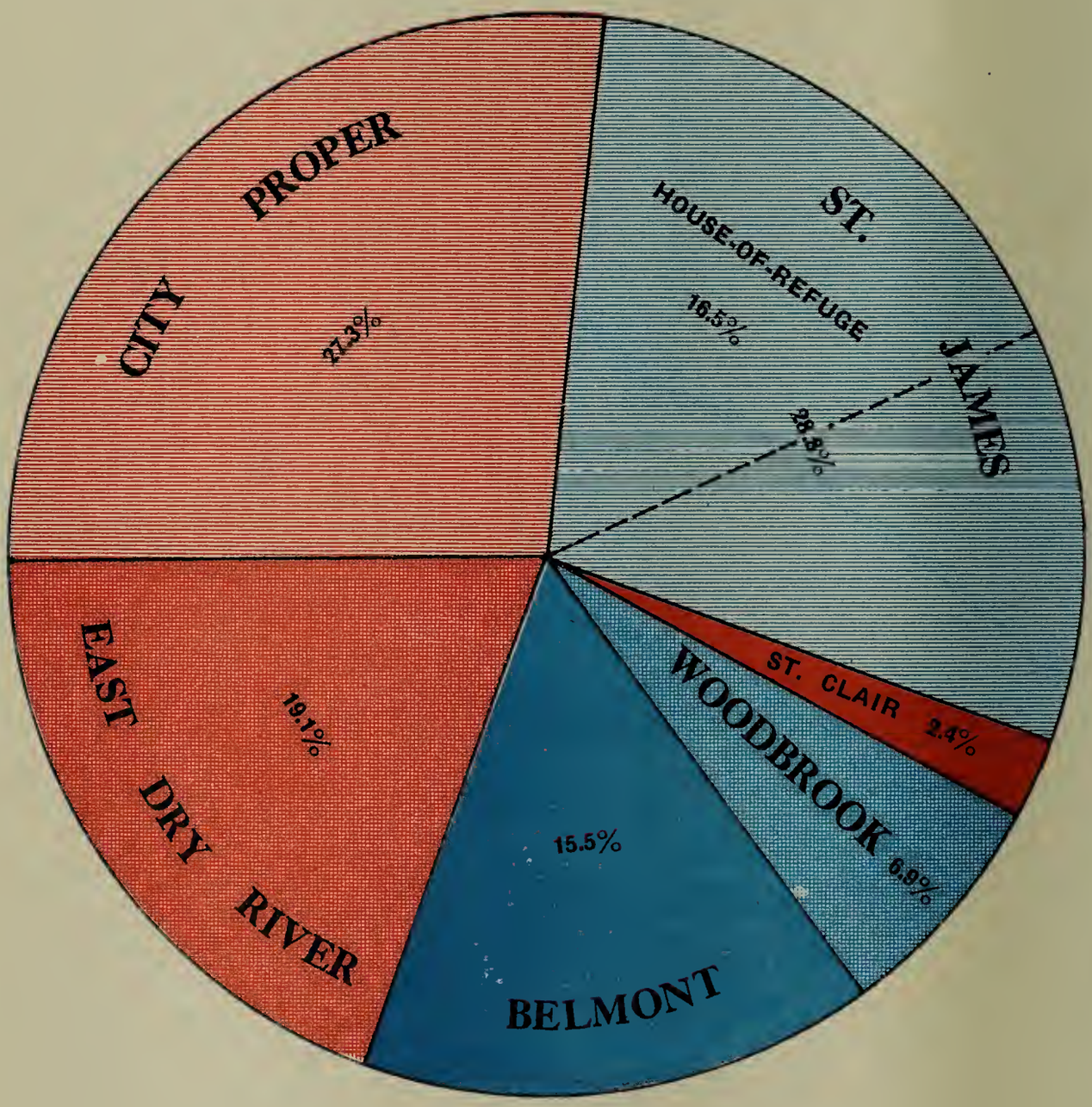
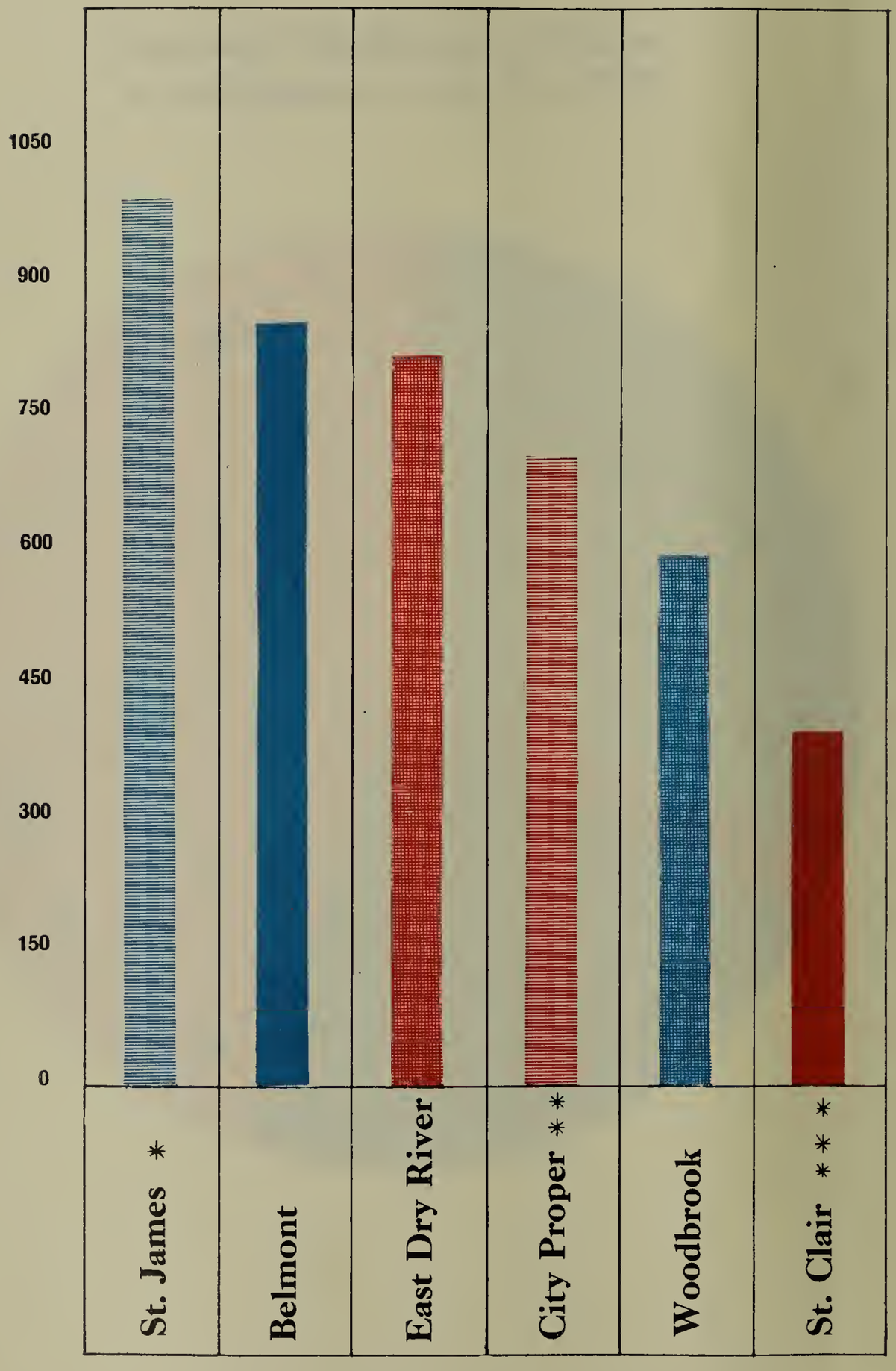


CHART D

Port-of-Spain

Crude Death Rate per 100,000 of population in Sub-Districts of the City 1958



* Deaths at House of Refuge excluded.

** Deaths at Seventh Day Adventist Clinic excluded.

*** Deaths at Park Nursing Home excluded.

Births and Birth Rates

The total number of live births recorded for the year 1958 was 2,592 as compared with 2,735 in the year 1957. This reduction is not of any statistical significance seeing that because of more accurate returns in which the usual place of the residence of parents, i.e. the actual place where the parents or the parent of the infant resided in the previous six months, now appears on the form, many returns which would in other circumstances be classified as City births are now properly referred to the country districts where their parents or parent usually reside. As greater accuracy is again obtained particularly in the returns coming from nursing homes and other institutions within the City it is to be expected that the number of births would show a decline. The birth rate worked out at 2,139 per 100,000 in 1958, the year under report, as against 2,267 per 100,000 in the previous year. Still births registered totalled 66 as against 78 in 1957 and the still birth rate worked out to be 25.46 as against 28.52 per 1,000 live births in the year 1957.

The birth rate of 2,139 per 100,000 must be considered a high birth rate, but there is no need for alarm and seeing that Trinidad and Tobago is becoming more and more industrialised, a declining birth rate can be confidently expected if the experience of other countries is duplicated locally.

Deaths and Death Rates

The number of deaths certified to the Department in the year under report totalled 1,147, a rise of 13 on the figure for 1957 which was 1,134, giving a death rate of 946 per 100,000 as against 940 per 100,000 in the previous year. This slight increase is hardly of any statistical significance and we can take it that the City's death rate is nowadays round about 950 per 100,000 population which cannot be considered an unsatisfactory figure.

On the whole the figures for deaths and death rates can be considered more accurate and therefore more reliable than the figures for births and birth rates seeing that ever since the establishment of the Local Sanitary Authority in 1917 when the compilation of statistics on an organised basis was made possible we have always had the actual addresses of the deceased inserted in the returns that are sent to this Department, and so it has always been possible to ascertain with a good deal of accuracy the deaths that properly belong to the City and those that do not, and to refer the latter to their proper quarter.

This low figure for the death rate of the City is the logical outcome of improved and improving environmental hygiene, of better personal and community health, of more adequate hospital and social services, of more up-to-date health administration, and of a greater consciousness of the value of good health and clean living. It is indeed remarkable, as indicating the much greater influence of the above mentioned factors, that this lowered rate has been and is being maintained in spite of economic difficulties, like the high cost of living index, the indifferent quality of imported foodstuffs on which we have to depend to such a large extent, and the increasing complexity and stress and strain of modern life.

Birth and Death Rate 1958

Births, 1958				Deaths, 1958			
Males	Females	Both Sexes	Birth Rate per 100,000 population	Males	Females	Both Sexes	Death Rate per 100,000 population
1,308	1,284	2,592	2,139	572	575	1,147	946

Deaths in Sub-Districts of the City, 1958

Sub-District	Mean Population	Deaths				Total Deaths	Rate per 100,000 population
		Place of Occurrence				Sub-Districts	
		Home, &c.	General Hospital	Royal Gaol	House of Refuge		
City Proper	41,682	169	139	5	—	313	258
St. Clair	2,031	27	1	—	—	28	23
East Dry River	26,890	92	127	—	—	219	181
Belmont	20,947	88	90	—	—	178	147
Woodbrook	13,375	46	33	—	—	79	65
St. James	14,225	71	70	—	189	330	272
Total	121,150	493	460	5	189	1,147	946

Age Distribution of Deaths, 1958

Period	Males	Females	Both Sexes	Percentage of Total Mortality at All Ages
Under 1 year	98	73	171	14.91
1– 5 years	23	19	42	3.66
6–10 do.	4	2	6	.52
11–20 do.	4	12	16	1.39
21–30 do.	18	15	33	2.88
31–40 do.	23	29	52	4.53
41–50 do.	49	36	85	7.41
51–60 do.	90	57	147	12.82
Over 60 years	263	332	595	51.88
Total	572	575	1,147	—

Comparison of Deaths at different Age Periods, 1928-58

Period	Total Deaths at All Ages	Deaths under 1 Year		Deaths 1–5 Years		Deaths 56–60 Years		Deaths over 60 Years	
		No.	Percentage of Total Deaths	No.	Percentage of Total Deaths	No.	Percentage of Total Deaths	No.	Percentage of Total Deaths
Yearly Averages									
1928-32 ...	1,327	230	17.42	81	6.06	94	7.09	336	25.10
1933-37 ...	1,167	215	18.24	62	5.29	87	7.57	289	24.74
1938-42 ...	1,622	275	16.85	68	4.21	117	7.20	566	34.92
1943 ...	1,862	283	15.20	102	5.48	131	7.04	674	36.20
1944 ...	1,620	248	15.31	77	4.75	106	6.54	598	36.92
1945 ...	1,526	239	15.66	71	4.65	86	5.64	561	36.76
1946 ...	1,396	241	17.26	77	5.52	95	6.81	493	35.32
1947 ...	1,385	231	16.68	49	3.54	92	6.64	536	38.70
1948 ...	1,191	177	14.86	45	3.78	66	5.54	491	41.23
1949 ...	1,147	171	14.91	57	4.97	85	7.41	524	45.68
1950 ...	1,170	168	14.36	75	6.41	76	6.50	526	44.96
1951 ...	1,243	167	13.43	43	3.46	79	6.35	602	48.43
1952 ...	1,094	137	12.52	48	4.39	77	7.04	540	49.36
1953 ...	1,108	157	14.17	41	3.70	67	6.05	524	47.29
1954 ...	1,028	150	14.59	36	3.50	79	7.69	484	47.08
1955 ...	1,067	138	12.93	27	2.53	78	7.31	542	50.80
1956 ...	1,120	158	14.11	32	2.86	85	7.59	581	51.88
1957 ...	1,134	127	11.20	35	3.09	86	7.58	627	55.29
1958 ...	1,147	171	14.91	42	3.66	87	7.58	595	51.88

Causes of Deaths

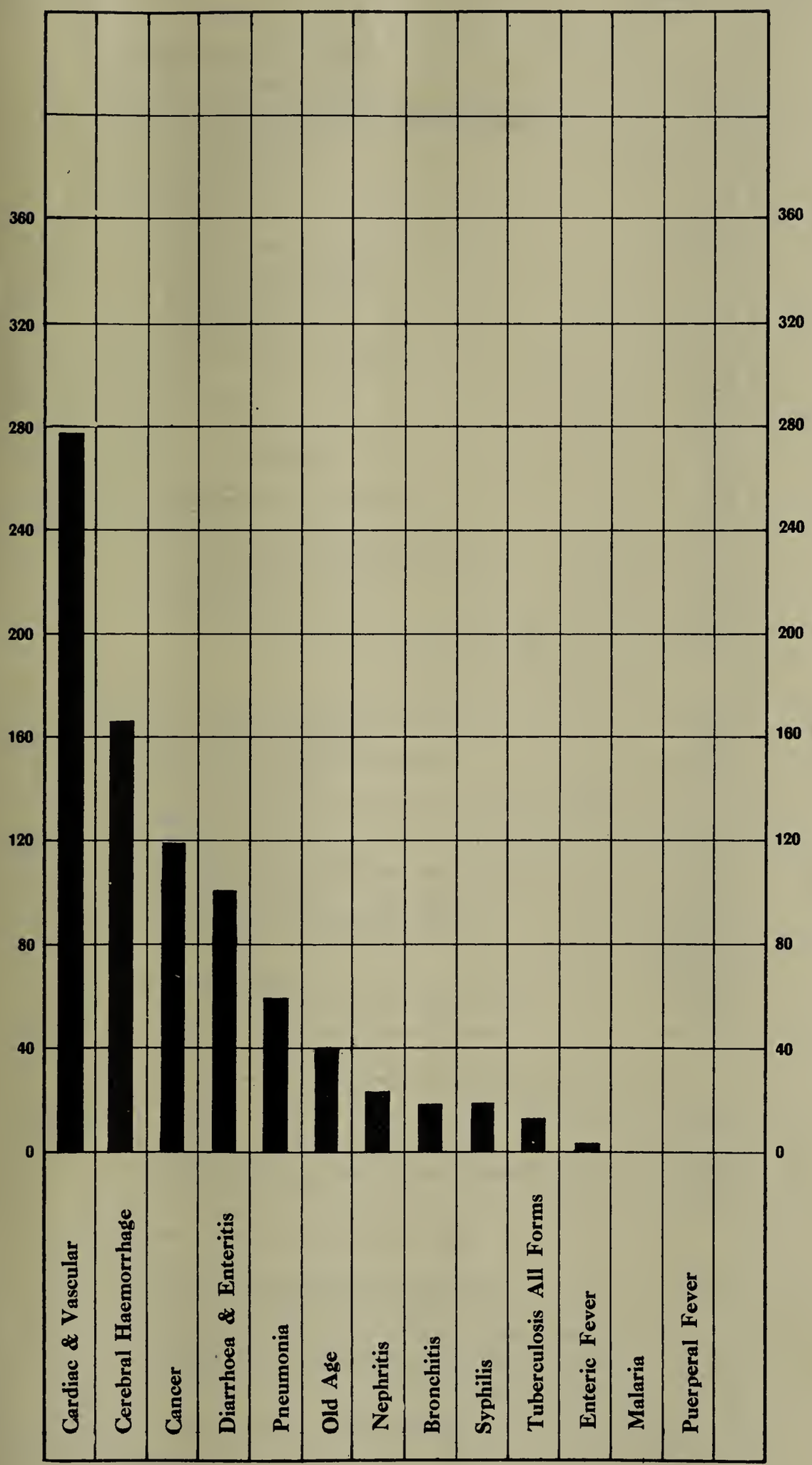
As I have mentioned earlier on in this report, 1,147 deaths of residents of the City, i.e., inhabitants whose place of residence in the six months antecedent to their deaths was the City, were recorded at the Public Health Department during the year under report. This figure was arrived at by careful analysis of each death return that reached the Department from the General Hospital, from the House of Refuge, from the various Nursing Homes situated within the limits of the City, and from private homes throughout the length and breadth of the City where death took place. These returns are signed by the practitioner who was last in attendance on the case, or by the practitioner who did a post-mortem on the case, and are sent in the first instance to the Registrar of the Sub-District in which the patient died, who in turn transmits them to the Public Health Department. Here the deaths are coded in accordance with the Intermediate List of 150 Causes of Morbidity and Mortality as contained in the International Statistical Classification, which has now been adopted officially in the Colony of Trinidad and Tobago.

It is always a matter of great importance and interest to any community to determine which causes are giving rise to the greatest mortality and analysis of the list demonstrates the fact that four groups of causes are responsible for the majority of deaths viz., diseases of the circulatory system, with 278 deaths, diseases of the nervous system and sensory organs with 165, cancer of the various organs of the body with 119, and diarrhoea and enteritis with 104. The first three causes have again run true to form, seeing that they have been claiming the greatest toll of mortality for the past 15 years, but diarrhoea and enteritis was responsible for a large increase of mortality in the year under report and occupied fourth place in the list of causes of deaths. Next in order came diseases of the respiratory system with 95 deaths, certain diseases of early infancy with 77 deaths, and senility with 40 deaths. But far and away the outstanding feature of the year 1958 in so far as causes of mortality were concerned is the unpalatable fact that there was a large increase in the number of deaths attributable to diarrhoea and enteritis as compared with previous years. Further reference to this will be made in that section of the report that deals with diarrhoea and enteritis.

Notifiable infectious diseases claimed 75 victims, pneumonia being responsible for 59 of them.

CHART E
Port-of-Spain

Principal Individual
CAUSES OF DEATHS 1958



Causes of Deaths, 1958—(International Classification)

Intermediate List No.	Cause Groups	Detailed List No.	Total
	I—Infective and Parasitic Diseases		
A 1	Tuberculosis of respiratory system	001–008	9
A 2	Tuberculosis of meninges and central nervous system	010	2
A 3	Tuberculosis of intestines, peritoneum and mesenteric glands ...	011	—
A 4	Tuberculosis of bones and joints	012	—
A 5	Tuberculosis, other forms :		
	02 All other forms	014, 016–019	1
A 6	Congenital Syphilis	020	—
A 8	Tabes Dorsalis	024	1
A 9	General paralysis of insane	025	—
A 10	All other syphilis	026–029	16
A 11	02 Other gonococcal infections	031–035	—
A 12	Typhoid fever	040	2
A 13	02 Other Salmonella infections	042	—
A 16	Dysentery, all forms :		
	01 Bacillary dysentery	045	1
	02 Amoebiasis	046	1
	03 Other unspecified forms of dysentery	047, 048	—
A 20	Septicaemia and pyaemia	053	4
A 21	Diphtheria	055	2
A 22	Whooping cough	056	—
A 23	Meningococcal infections	057	—
A 25	Leprosy	060	—
A 26	Tetanus	061	5
A 29	Acute infectious Encephalitis	082	2
A 32	Measles	085	—
A 34	Infectious hepatitis	092	2
A 37	03 Falciparum malaria (malignant tertian)	112	—
A 41	Ankylostomiasis	129	—
A 42	02 Ascariasis	130.0	1
A 43	All other diseases classified as infective and parasitic :		
	01 Lymphogranuloma venereum	037	—
	02 Granuloma inguinale, venereal	038	—
	08 Chicken pox	087	—
	22 Herpes zoster	088	—
	25 All other diseases classified as infective and parasitic ...	132–134	—
	II—Neoplasms		
A 44	Malignant neoplasm of buccal cavity and pharynx	140, 148	3
A 45	Malignant neoplasm of oesophagus	150	5
A 46	Malignant neoplasm of stomach	151	19
A 47	Malignant neoplasm of intestine, except rectum	152, 153	11
A 48	Malignant neoplasm of rectum	154	5
A 49	Malignant neoplasm of larynx	161	2
A 50	Malignant neoplasm of trachea and of bronchus and lung not specified as secondary	162, 163	3
A 51	Malignant neoplasm of breast	170	10
A 52	Malignant neoplasm of cervix uteri	171	12
A 53	Malignant neoplasm of other unspecified parts of uterus	172–174	12
A 54	Malignant neoplasm of prostate	177	2
A 55	Malignant neoplasm of skin	190–191	—
A 56	Malignant neoplasm of bone and connective tissue	196, 197	1
A 57	Malignant neoplasm of all other and unspecified sites	155–160 175, 176 198, 199	30
A 58	Leukaemia and Aleukaemia	204	4
A 59	Lymphosarcoma and other neoplasms of lymphatic system ...	200–203 205	—
A 60	Benign neoplasms and neoplasms of unspecified nature	210–239	2
	III—Allergic, Endocrine System, Metabolic, and Nutritional Diseases		
A 62	Thyrotoxicosis with or without goitre	252	—
A 63	Diabetes mellitus	260	18
A 64	Avitaminosis and other deficiency states :		
	01 Beri Beri	280	—
	04 Vitamin B deficiency, except beri beri and pellagra ...	286.2	—
	05 Other deficiency states	283–286	6
	IV—Diseases of the Blood and Blood-Forming Organs		
A 65	Anaemias :		
	01 Pernicious and other hyperchromic anaemias	290	1
	03 Other specified and unspecified anaemias	292, 293	3
A 66	Allergic disorders, all other endocrine, metabolic and blood diseases :		
	01 Asthma	241	6
	02 All other allergic disorders, endocrine, metabolic and blood diseases	253	1
	V—Mental, Psychoneurotic and Personality Disorders		
A 67	Psychoses	300–309	2
A 68	Psychoneuroses and disorders of personality	310–324 326	—

Causes of Deaths, 1958—(International Classification)—*Continued*

Intermediate List No.	Cause Groups	Detailed List No.	Total
	VI—Diseases of the Nervous System and Sensory Organs		
A 70	Vascular lesions affecting central nervous system	330–334	148
A 71	Nonmeningococcal meningitis	340	6
A 72	Multiple sclerosis	345	1
A 73	Epilepsy	353	2
A 77	02 Otitis media and mastoiditis	391–393	—
A 78	02 All other diseases of the nervous system and sense organs ...	341–344 350–352 354–357 360–369 395–398	8
	VII—Diseases of the Circulatory System		
A 79	Rheumatic fever	400–402	—
A 80	Chronic rheumatic heart disease	410–416	3
A 81	Arteriosclerotic and degenerative heart disease	420–422	188
A 82	Other diseases of the heart	430–434	26
A 83	Hypertension with heart disease	440–443	37
A 84	Hypertension without mention of heart	444–447	14
A 85	Diseases of arteries	450–456	10
A 86	Other diseases of the circulatory system	460–468	—
	VIII—Diseases of the Respiratory System		
A 87	Acute upper respiratory infections	470–475	—
A 88	Influenza	480–483	1
A 89	Lobar pneumonia	490	12
A 90	Broncho pneumonia	491	33
A 91	Primary atypical, other, and unspecified pneumonia	492, 493	14
A 92	Acute bronchitis	500	6
A 93	Bronchitis, chronic and unqualified	501, 502	11
A 95	Empyema and abscess of lung	518, 521	2
A 96	Pleurisy	519	2
A 97	All other respiratory diseases :		
	01 Pneumoconiosis	523	—
	02 All other respiratory diseases	511–517 520–522 524–527	5
	IX—Diseases of the Digestive System		
A 99	Ulcer of stomach	540	2
A100	Ulcer of duodenum	541	3
A101	Gastritis and duodenitis	543	3
A102	Appendicitis	550–553	3
A103	Intestinal obstruction and hernia	570	6
A104	Gastro-enteritis and colitis, except diarrhoea of the newborn :		
	01 Gastro-enteritis and colitis between 4 weeks and 2 years ...	571.0	68
	02 Gastro-enteritis and colitis, ages 2 years and over ...	571.1	31
	03 Chronic Enteritis and ulcerative colitis	572	4
A105	Cirrhosis of Liver	581	14
A106	01 Cholelithiasis	584	—
	02 Cholecystitis without mention of calculi	585	—
A107	Other diseases of digestive system	536–539 542–544 545 573–580 582–583 586–587	5
	X—Diseases of the Genito-Urinary System		
A108	Acute Nephritis	590	5
A109	Chronic and other unspecified nephritis	591–594	17
A110	Infections of kidneys	600	8
A111	Calculi of urinary system	602–604	—
A112	Hyperplasia of prostate	610	9
A114	02 Disorders of menstruation	634	—
A114	03 All other diseases of the genito-urinary system	601–603 605–609 611, 612 614–617 622–623 635–637	7
	XI—Deliveries and Complications of Pregnancy, Childbirth, and the Puerperium		
A116	01 Puerperal eclampsia	685	—
	02 All other toxaemias of pregnancy and the puerperium ...	642, 652, 686	2
A117	Haemorrhage of pregnancy and childbirth :		
	01 Placenta praevia	643	—
	02 Haemorrhage of pregnancy	644, 670	2
A118	Abortion without mention of sepsis	650	—
A119	Abortion with sepsis	651	6
A120	All other complications of pregnancy and childbirth :		
	01 Ectopic pregnancy	645	—
	03 Delivery complications	673–675	—
	04 Other complications of pregnancy	646, 648 649, 676 680, 683	—

Causes of Deaths, 1958—(International Classification)—*Continued*

Intermediate List No.	Cause Groups	Detailed List No.	Total
	XII—Diseases of the Skin and Cellular Tissues		
A121	Infections of skin and subcutaneous tissue	690–698	
	XIII—Diseases of the Bones and Organs of Movement		
A122	Arthritis and spondylitis	720–725	2
A123	Rheumatism unspecified	726–727	—
A124	Osteomyelitis and Periostitis	730	—
A126	All other diseases of the skin and musculoskeletal system :		
	01 Chronic ulcer of skin	715	6
	02 All other diseases of skin	716	3
	03 All other diseases of musculoskeletal system	731–736 738, 744	—
	XIV—Congenital Malformations		
A127	Spina bifida and meningocele	751	—
A128	Congenital malformation of Circulatory System	754	3
A129	All other congenital malformations	750–752 753, 755 759	1
	XV—Certain Diseases of Early Infancy		
A130	Birth Injuries	760–761	1
A131	Post-natal asphyxia and atelectasis	762	9
A132	Infections of the newborn :		
	01 Diarrhoea of newborn (under 4 weeks)	764	5
	03 Sepsis of newborn	767, 768	2
	04 Other infections of newborn	763–766	—
A133	Haemolytic diseases of newborn	770	4
A134	All other defined diseases of early infancy :		
	02 Haemorrhagic disease of newborn	771	7
	03 Nutritional maladjustment	772	7
A135	Ill-defined diseases peculiar to early infancy and immaturity unqualified	773, 776	43
	XVI—Symptoms, Senility and Ill-defined Conditions		
A136	Senility without mention of psychosis	794	40
A137	01 Pyrexia of unknown origin	788.8	1
	03 Certain symptoms referable to nervous system and special senses	780	—
	04 Other symptoms referable to nervous system...	781	—
	05 Symptoms referable to cardio-vascular and lymphatic system ...	782	2
	06 Symptoms referable to respiratory system	783	—
	08 Symptoms referable to abdomen and lower gastro-intestinal system	785	1
	12 Nervousness and debility	790	—
	14 Uraemia unqualified	792	10
	15 Ill-defined and unknown causes of mortality	759	44
	16 Other general symptoms	788.1–788.9	—
	"E" XVII–Code Alternative Classification of Accidents, Poisonings, and Violence (External Cause)		
AE138	Motor Vehicles Accident	E810–E825	3
AE139	Other Transport Accidents		1
AE140	Accidental poisoning	E870–E985	—
AE141	Accidental falls	E900–E904	1
AE142	Accident caused by machinery	E912	—
AE146	Accidental drowning...	E929	—
AE147	02 Foreign body entering other orifice	E928	—
	05 All other accidental causes...	E910–E911	—
AE148	Suicide and self-inflicted injury	E970–E979	3
AE149	Homicide and Judicial Execution	E980–E985	8
	"N" XVII–Code Alternative Classification of Accidents, Poisonings and Violence (Nature of Injury)		
AN138	Fracture of skull	N800–N804	2
AN139	Fracture of spine and trunk	N805–N809	
AN140	Fracture of limbs	N810–N829	3
AN143	Head injury (excluding fracture)	N850–N856	1
AN144	Internal injury of chest, abdomen and pelvis	N860–N869	2
AN145	Laceration and open wounds	N870–N908	
AN147	Effects of foreign body entering through orifice	N930–N936	
AN148	Burns	N940–N949	1
AN149	Effects of poisons	N960–N979	
AN150	All other and unspecified effects of external causes	N950–N959 N980–N999	
	Grand Total		1,147

Infant Mortality

Sufficient has been said in previous reports as to the great importance attached to this rate by sociologists and public health workers, and by welfare workers and statisticians, as a very sensitive index of the state of progress and civilization of a community, of the general level of education, particularly health education, and of the state of environmental hygiene, apart altogether from the yard stick that it undoubtedly is as to the efficiency and success of the specific measures that are directed to the prevention and treatment of the accidents and diseases of pregnancy, confinement, and post-natal life. It is enough for me to state in this report that more and more with each succeeding year, it is being realised that the deaths of infants under one year constitute a wastage of human life that is in large measure preventable and that it is well worth the time, energy, and expense involved to reduce this wastage and eventually to eliminate it altogether, apart altogether from the humanitarian point of view that any life is worth saving, but more so from the point of view of the fact that the life of a potential breadwinner, a potential benefactor, a potential genius may thereby be saved. Even international organisations like the World Health Organisation and the United Nations International Children's Emergency Fund (UNICEF) are beginning to take an active interest in the deaths of infants and children as obtain in this Colony, and help in the shape of milk supplies and equipment, is beginning to reach us. What is, however, urgently needed is an intensive campaign designed to reach every expectant mother, infant, toddler and child in the cities, towns and villages, and to bring to them skilled care and treatment in their homes, and adequate nutrition during the critical periods of pregnancy, confinement, post-natal and pre-school life. The campaign must be fully organised and Government, Child Welfare League, and Voluntary Welfare Bodies must be prepared to participate in a matter that concerns them most intimately. More health visitors are, however, a preliminary requisite of such a scheme and it is clear now that many more health visitors will have to be recruited and trained before such a project can be undertaken with any hope of ultimate success. It is a well recognised fact that only a proportion of mothers and infants ever go to the child welfare clinics and in these circumstances it is inevitable that the "clinic must be brought to the home" where mothers and infants can get the benefit of the skilled care of health visitors and, if considered necessary, of the clinic doctor. In addition incentive would almost certainly be given to the State and to the individual to improve the hygiene of the neighbourhood which has such an important influence on child life, and mothers would be taught how to deal with the problems of feeding, cleanliness, and sanitation generally in the atmosphere and circumstances of their own homes instead of those that obtain in the clinic.

In the year under report, 171 infants under the age of one year lost their lives from causes which are listed in the special table detailed at the end of this section, and seeing that 2,592 births were registered, the infant mortality rate worked out to be 65.97 per 1,000 live births, the highest rate recorded for the past ten years.

The increase in this rate over the corresponding rate for previous years is due mainly to the fact that of the 171 deaths recorded, 60 were due to diarrhoea and enteritis which was unduly prevalent in the year under report and which was responsible for a particularly high toll of mortality in infants and children under five years of age. In addition, fewer births were registered due to the fact that more accurate returns enable the exclusion of infants whose parents were residents of areas outside the limits of the City but who had come into the City for the specific purpose of confinement.

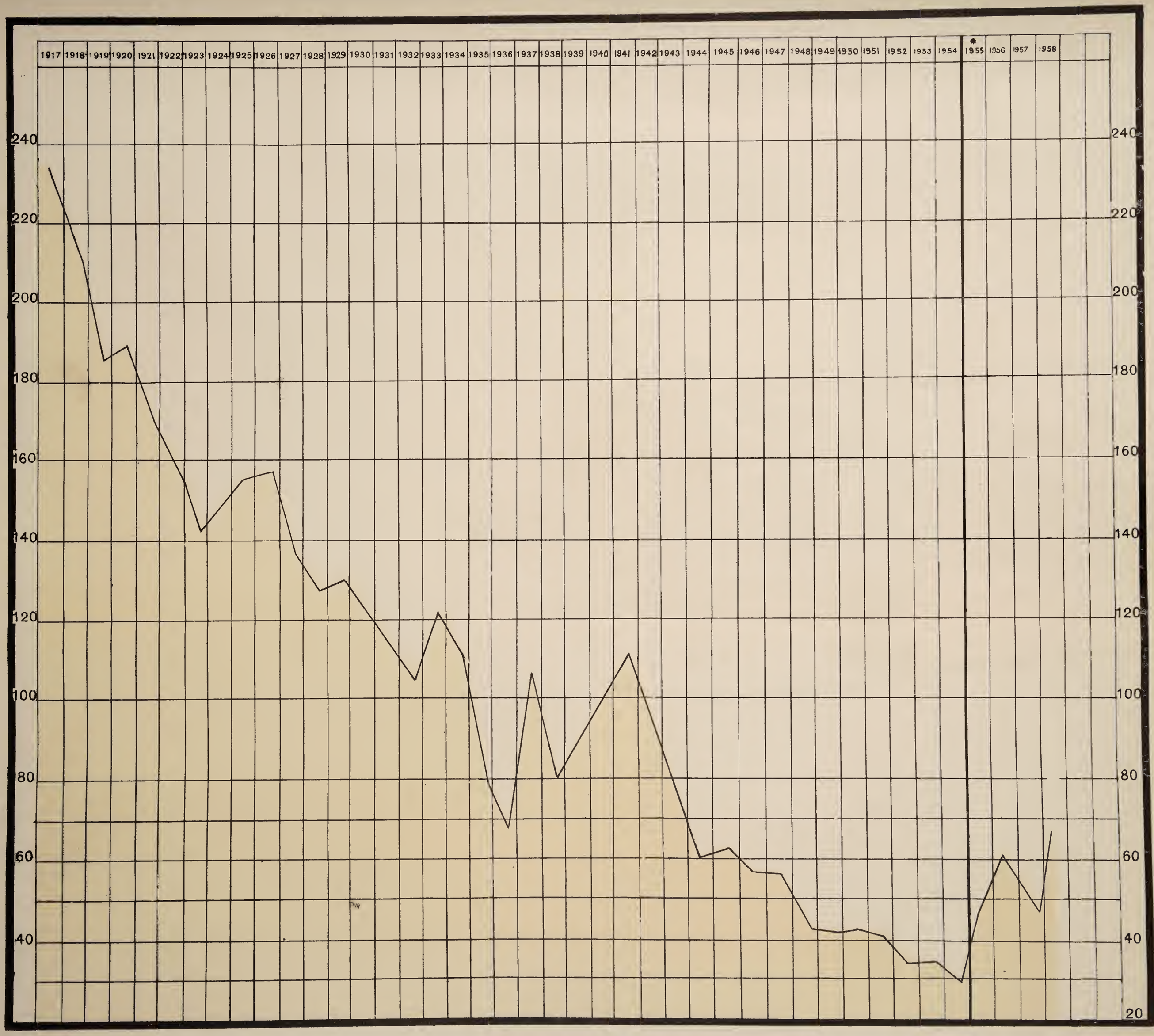
Births and Deaths of Infants under 1 year, 1917-58

Period	No. of Births	No. of Deaths under 1 year	Infant Mortality Rate
Year 1917	1,770	412	232.77
Yearly Averages :			
1918–22	1,700	310	182.94
1923–27	1,862	274	146.96
1928–32	1,925	230	119.13
1933–37	2,248	215	96.05
1938–42	2,913	275	93.84
1943–47	4,026	248	61.94
Average 1918–47	2,446	259	116.94
1948	4,053	177	43.67
1949	4,037	171	42.36
1950	3,905	168	43.02
1951	3,982	167	41.94
1952	4,115	137	33.29
1953	4,499	157	34.90
1954	5,403	150	27.76
1955	3,078	138	44.83
1956	2,621	158	60.28
1957	2,735	127	46.44
1958	2,592	171	65.97

CHART F

Port-of-Spain

Infant Mortality Rates per 100,000 Live Births 1917-1958



* Adjusted Rate (1955): Births and Deaths of City Residents only

Causes of Deaths under 1 year, 1958

Causes of Deaths	Neo-Natal Deaths under 1 month	Deaths 1 month and under 1 year	Total	Percentage of Total Infant Mortality
Ante-Natal Causes				
Prematurity	42	2	44	
Marasmus	—	1	1	
Malnutrition	2	2	4	
Foetalis Hydrops	1	—	1	
Congenital Heart Disease	—	2	2	
Hydrocephalus	1	—	1	
Total Ante-Natal	46	7	53	30.99
Intra Natal Causes :				
Haemorrhage	1	—	1	
Total Intra-Natal	1	—	1	0.59
Post-Natal Causes :				
Asphyxia and Atelectasis	8	—	8	
Pneumonia	2	7	9	
Diarrhoea and Enteritis	5	55	60	
Bronchitis	—	4	4	
Icterus Neonatorum	3	1	4	
Pleurisy	—	—	—	
Tuberculosis	—	1	1	
Pulmonary Congestion	—	—	—	
Other Post-Natal Causes	23	8	31	
Total Post-Natal	41	76	117	68.42
GRAND TOTAL	88	83	171	

*M—98 F—73

Duration of Life of Infants dying under 1 year of Age, 1958

Duration of Life	No. of Infants	Percentage of Total Deaths under 1 year	Corresponding Percentage, 1957
Under 1 day	17	9.94	7.09
1 day and under 2 weeks	55	32.16	44.38
2 weeks and under 1 month	16	9.36	3.15
Total under 1 month	88	51.46	55.12
1 month to 3 months	24	14.04	13.39
Over 3 to 5 months	26	15.20	8.66
Over 5 to 7 months	16	9.36	12.60
Over 7 to 9 months	12	7.02	4.72
Over 9 to 11 months	5	2.92	5.51
Over 11 months and under 1 year	—	—	—
TOTAL	171	—	—

Neo-Natal Mortality (Deaths under 1 month) 1930–1958

Period	No. of Deaths under 1 month	Percentage of Total Deaths under 1 year	Neo-Natal Mortality Rate per 1,000 Births
Yearly Average 1930–34	90.6	38.60	44.03
Year 1935	91	50.28	39.24
1936	61	40.94	26.58
1937	110	46.41	48.39
1938	117	57.35	45.16
1939	122	50.41	44.33
Average 1935–39	100.2	49.08	40.74
Year 1940	132	45.36	44.94
1941	137	43.63	47.44
1942	134	41.62	39.42
1943	134	47.35	35.72
1944	117	47.18	28.12
1945	126	52.72	31.72
1946	136	56.43	32.91
1947	133	57.58	32.20
1948	76	42.94	18.75
1949	82	47.96	20.31
1950	82	48.82	21.00
1951	77	46.11	19.34
1952	60	43.79	14.58
1953	84	53.51	18.67
1954	84	56.00	15.55
1955	82	59.42	26.64
1956	67	42.41	25.56
1957	70	55.12	25.59
1958	88	51.46	33.95

Still Births

Whilst the infant mortality rate has always attracted great attention and interest, and has always been the subject of careful analysis in this country as well as in other parts of the civilised world, the problem of still births and the still birth rate has not, by comparison, been given the place and importance it deserves in spite of the fact that the study of still births is intimately bound up with that of infant deaths. It is clear that the same causes and conditions that determine the death of an infant in the post-natal period and particularly in the neo-natal period of extra-uterine life can, if these are noxious enough and if the infant for one reason or another is debilitated enough, lead to its death in the mother's womb. There is a very short cry between a still birth and the death of an infant born alive but dying within the first few days of extra-uterine life, and an attitude of casual notice and quiet tolerance in the face of a menacing problem which has in its basic causes an important influence on the infant mortality rate itself is not likely to lead to the adoption of preventive measures directed to its elimination.

In addition to the diseases and accidents of pregnancy and confinement which are capable of leading to the death of the infant in the mother's womb or during the early days of extra-uterine life and for which prompt and skilled medical care and attention during the ante-natal and intra-natal periods are necessary, certain general diseases affecting the parents before the ante-natal period can have such a profound lethal effect on the life of the infant that it cannot possibly survive for any length of time. I refer to chronic system diseases like syphilis, diabetes, chronic nephritis, chronic alcoholism, malaria, tuberculosis, &c., and it is therefore a matter of paramount importance that a prospective parent be seized of this knowledge and that remedial measures be adopted without any delay, either to eliminate or diminish the effects of these diseases.

During the year under report 66 still births were registered with the Department and this number represents the lowest ever recorded in the annals of the history of the Local Sanitary Authority ever since its establishment by the Public Health Ordinance Ch. 12. No. 4 in 1917. This represents a still birth rate of 25.46 per 1,000 live births. The number of still births registered during the past four years has been small, viz., 89, 67, 78, 66, when these figures are compared with the corresponding figures for the previous four years, viz., 193, 207, 225, 268 respectively.

Whilst it may be stated with some degree of certainty that some success from the measures directed to the reduction of the still birth rate and the infant mortality rate has been achieved, by far the greatest factor responsible for this reduction is the elimination of all still births that do not properly belong to the City, which has been rendered possible by the more accurate returns from the various institutions devoted to the care of the expectant and lying-in mother within the limits of the City which we have been able to get during the past five years.

Still Births 1938–1958

Year	Total Still Births	Rate per 1,000 Live Births
1958	66	25.46
1957	78	28.52
1956	67	25.56
1955	89	28.92
1954	268	49.60
1953	225	50.01
1952	207	50.30
1951	193	48.47
1950	165	42.25
1949	244	60.44
1948	223	55.02
1947	220	53.49
1946	225	54.44
1945	224	56.39
1944	265	63.69
1943	230	61.32
1942	257	75.61
1941	211	73.06
1940	214	72.86
1939	190	69.04
1938	171	66.00

Maternal Mortality

The death of a mother as a result of pregnancy and/or confinement is a tragedy that calls for careful investigation and critical analysis. Such deaths are and should be, for the most part, preventable and where the maternal mortality is high, there can be found inadequate and perhaps delayed attention, care and supervision during the ante-natal, intra-natal and post-natal period. Pregnancy and confinement are physiological processes, and the loss of a mother's life as a result of what is a physiological process represents a wastage of life that should be prevented on general humanitarian grounds, apart altogether from the fact that a physiological process should entail no disease, injury, or death. Besides, a child and mother saved might very well be the means whereby greater benefit, greater welfare, and greater happiness are made to accrue to the community.

The mortality rate for the year under report worked out to be 3.85 per 1,000 live births. This is a little higher than the average maternal mortality rate for the previous five years which was calculated at 3.14 per 1,000 live births.

Causes of Maternal Deaths 1958

Causes of Maternal Deaths	Under 16	16 to 25	26 to 35	36 and Upwards	Total All Ages	Rate per 1,000 Births	
						1958	Average 1953–1957
Puerperal Sepsis	—	—	—	—	—	—	0.04
Eclampsia	—	—	—	—	—	—	0.24
Haemorrhage	—	1	1	—	2	0.77	0.51
Pernicious Vomiting	—	—	—	—	—	—	0.08
*Other Causes	1	3	4	—	8	3.08	2.27
TOTAL	1	4	5	—	10	3.85	3.14

*Other Causes include Abortion with Sepsis, Toxaemia of Pregnancy.

The Pre-School Child

Whilst much care and attention have for decades now been devoted to the infant under one year in child welfare clinics and at home, by welfare organisations, by propaganda and advertisement as well as by the provision of skilled and prompt medical care and treatment, by the provision of much needed supplies and even in some cases by financial assistance, &c., the pre-school child by contrast seems completely neglected. And yet this is a period of the child's life which is so important from the point of view of future manhood and fruitful citizenship, seeing that diseases occurring at this period and left untreated are likely to affect profoundly the future health and usefulness of the grown-up adult and make him a life long burden on, rather than an active contributor to the welfare of the State.

The infant at the end of 12 or 18 months seems, so to speak, to be lost to all care and welfare organisations only to be " discovered " again when at the age of five he enters school and when a number of defects and diseases are detected which could quite easily, in the majority of cases, have been prevented if only they had been discovered at an earlier period of time. This is the *raison d'etre* for nurseries and nursery schools, more of which should be established to which the toddler between the ages of one and five can be brought for attention, where he can be medically examined and where he can be given additional food like dried milk or glucose, and if necessary left during the day whilst the mother goes out to work to earn a living or to supplement the meagre earnings of the head of the family.

Happily these important facts are being more generally recognized and the need for this most essential service more fully appreciated. The Child Welfare League and tho Nursery Association, whose functions include the provision of nurseries and nursery schools are actively engaged in efforts directed to the raising of funds for this specific purpose. There should be no hesitation on the part of Government and the people at large to make funds available for this very desirablo and most productive servico.

Causes of Death at Ages 1-5, 1958

Groups	Group Total	Percentage of Total Mortality at ages 1–5
Diseases, &c., attributable to Ante-Natal Causes : Cerebral Depression 1 ; Prematurity 1	2	4.761
Communicable Diseases : Pneumonia 2 ; Diphtheria 2	4	9.523
Diseases of the Nervous System : Meningitis 3 ; T.B. Meningitis 1	4	9.523
Diseases of the Circulatory System : Heart Disease 1	1	2.38
Diseases of the Respiratory System : Bronchitis 4	4	9.523
Diseases of the Digestive System : Gastro-Enteritis 16	16	38.10
Other Causes : Nutritional Anaemia 2 ; Malnutrition 2 ; Tetanus 2 ; Not Known 1; Pernicious Anaemia 1 ; Tumour of the Brain 1 ; Acute Nephritis 2	11	26.19
	*42	—

*M—23 ; F.–19

PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES

Notifiable Infectious Diseases

It is interesting to recall the fact that the whole of the concept as to the necessity for a separate organisation and a distinct department to deal with preventive measures generally and to improve the environmental hygiene of the community specifically, stemmed from the havoc and devastation that infectious diseases used regularly to wreak in the sixteenth, seventeenth and eighteenth centuries on a population which knew little or nothing of these diseases, and who were poorly equipped and inadequately protected to meet their ravages. When one thinks of the epidemics of cholera, plague, typhus fever, small pox and typhoid fever that used to descend upon the residents of mediaeval cities and how in those days the population used to be decimated by their depredations, one must marvel at the progress that has been made and the efficiency of the measures that have been applied to prevent and limit the spread of infectious diseases. Not often nowadays does one hear or read of an epidemic that has caused the death of so many thousands of people, though they still do occur in less protected communities, and if nothing else they serve to remind us that the price of safety is eternal vigilance. There can be no let-up in the fight against infectious disease and the time honoured measures of the detection and isolation of patients, the disinfection of premises and fomites, of inoculation and immunization have stood the test of time, aided and supplemented as they are nowadays by greater knowledge as to the cause of these diseases and the consequent more specific active immunization that has become available.

Part XIV of the Public Health Ordinance Ch. 12 No. 4 prescribes the procedure that legally obtains in regard to infectious diseases and also details the list of infectious diseases which are notifiable, a list that can be added to or subtracted from as circumstances dictate.

Twenty-one (21) infectious diseases are now notifiable, the latest addition to the list being malaria which was declared a notifiable infectious disease in March 1956. Of these, seven are dangerous infectious diseases in regard to which the process of quarantine can, if need be, be applied. They are plague, cholera, yellow fever, small pox (including alastrim) typhus fever, typhoid fever and anthrax. Typhoid fever and anthrax were proclaimed dangerous infectious diseases in 1937 and 1938 respectively. (*Vide Royal Gazette* 30th July, 1937 and 2nd June, 1938).

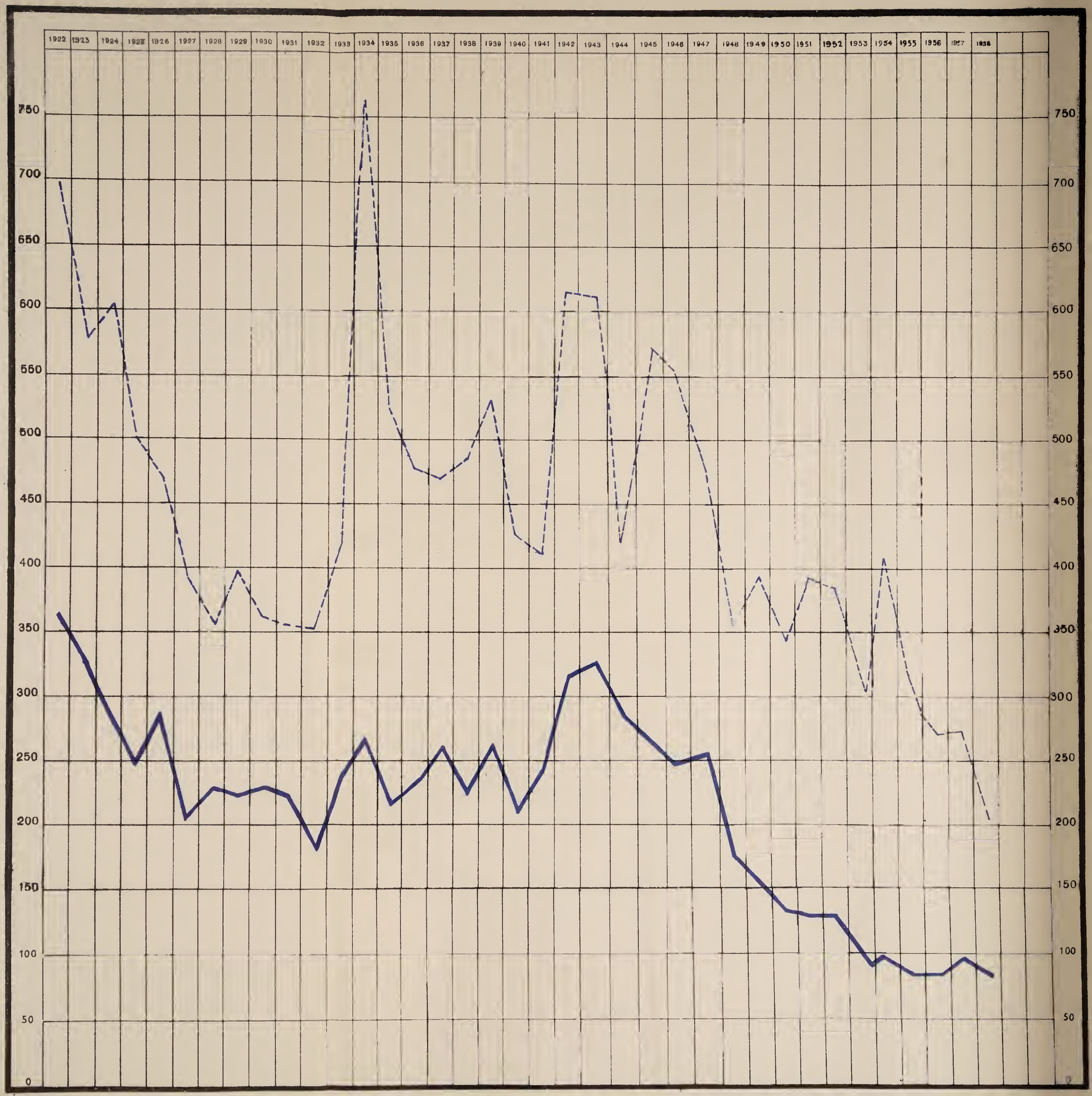
When once an infectious disease has been notified the whole train of preventive measures is immediately set in motion viz.: the effective isolation of the patient, at home, or if considered necessary, in hospital, the detection of contacts and their active or passive immunisation, the disinfection of premises and fomites, &c.

It is important for public health officers not to forget that often a case is notified on suspicion, as the law clearly enjoins, and in the circumstances it is the counsel of suprme perfection to get such cases admitted to hospital where the hospital doctor, knowing that the case has already been notified on suspicion, can afford to wait a little and be sure of the diagnosis before he again notifies the Medical Officer of Health as he is in duty bound. By this means a correct diagnosis can be established and accurate and reliable statistics compiled.

During the year under report 204 cases of infectious disease were notified to the Public Health Department as compared with 269 in the previous year. Of this number 75 were cases of pulmonary tuberculosis, 45 were cases of chicken pox, and 23 were cases of typhoid fever. Twenty-two cases of pneumonia were notified, but 59 deaths were certified to this disease which again demonstrates the fact that pneumonia is a " poorly notified " disease.

Deaths attributable to notifiable infectious diseases numbered 75 as compared with 97 in the previous year. When these figures are being subjected to critical analysis one must always bear in mind the fact that whilst a case of notifiable infectious disease may escape notification, every death from notifiable infectious disease, and for that matter every death, must be certified before burial can take place, and so greater reliability can be placed on death returns than on notifications, though one must depend almost entirely on notifications to indicate the prevalence of certain diseases like chicken pox, &c. which under normal circumstances are responsible for no mortality whatsoever.

CHART G
Port-of-Spain
Infectious Diseases—Notifications and Deaths 1922- 1958



Infectious Diseases—Notifications and Deaths, 1948-1958

Infectious Diseases	Cases Notified				Deaths			
	Average 1948–52	Average 1953–57	1957	1958	Average 1948–52	Average 1953–57	1957	1958
Diphtheria	21.0	23.0	19	14	1.6	0.8	1	2
Membranous Croup	—	0.2	—	—	—	—	—	—
Typhoid or Enteric Fever	31.2	16.4	9	23	5.2	1.4	—	2
Plague	—	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—	—
Yellow Fever	—	—	—	—	—	—	—	—
Small Pox (Alastrim)	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis	155.2	107.4	73	75	55.2	16.4	13	9
Tuberculosis (other forms)	5.6	3.4	1	3	9.8	3.2	—	3
Pneumonia	69.6	39.6	27	22	66.2	65.0	83	59
Ophthalmia Neonatorum	5.8	9.0	16	17	—	—	—	—
Chicken Pox	78.6	101.6	110	45	—	0.2	—	—
Encephalitis Lethargica	0.2	0.4	1	—	0.2	—	—	—
Acute Poliomyelitis	2.0	10.0	13	5	0.4	—	—	—
Cerebro-Spinal Fever	1.0	0.2	—	—	0.2	—	—	—
Typhus Fever	—	—	—	—	—	—	—	—
Puerperal Fever	0.4	0.2	—	—	1.0	0.2	—	—
Acute Ascending Myelitis	—	—	—	—	—	—	—	—
Anthrax	—	—	—	—	—	—	—	—
Malaria	—	0.4	—	—	—	0.2	—	—
Grand Total	370.6	311.8	269	204	39.8	87.4	97	75
Rate per 100,000 Population	356	267.4	223	168.4	135	75.0	80	61.9

Distribution of Cases and Deaths from Notifiable Infectious Diseases, 1958

Diseases	City Proper		St. Clair		East Dry River		Belmont		Woodbrook		St. James	
	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths
Diphtheria	4	—	—	—	1	—	7	2	—	—	2	—
Membranous Croup	—	—	—	—	—	—	—	—	—	—	—	—
Typhoid or Enteric Fever	3	—	—	—	13	1	2	1	—	—	5	—
Plague	—	—	—	—	—	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—
Yellow Fever	—	—	—	—	—	—	—	—	—	—	—	—
Small Pox (Alastrim)	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis	24	4	1	1	30	2	11	1	4	—	5	1
Tuberculosis (other forms)	—	—	—	—	1	1	1	1	—	—	1	1
Pneumonia (all forms)	7	16	—	2	8	10	5	8	1	6	1	17
Ophthalmia Neonatorum	8	—	—	—	6	—	1	—	1	—	1	—
Chicken Pox	10	—	—	—	20	—	11	—	2	—	2	—
Encephalitis Lethargica	—	—	—	—	—	—	—	—	—	—	—	—
Acute Poliomyelitis	2	—	—	—	—	—	2	—	—	—	1	—
Cerebro-Spinal Fever	—	—	—	—	—	—	—	—	—	—	—	—
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—
Acute Ascending Myelitis	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever	—	—	—	—	—	—	—	—	—	—	—	—
Anthrax	—	—	—	—	—	—	—	—	—	—	—	—
Malaria	—	—	—	—	—	—	—	—	—	—	—	—
Grand Total	58	20	1	3	79	14	40	13	8	6	18	19
Rate per 100,000 Population in each Sub-District	139	48	49	147	294	52	191	62	52	39	126	133

Notifiable Infectious Diseases—Home and Hospital Deaths, 1958

Diseases	Deaths			Hospital Deaths Percentage of Total Deaths	Corresponding Percentage for the year 1957
	At Home	At Hospital	Total		
Diphtheria	—	2	2	100.00	100.00
Enteric Fever	—	2	2	100.00	—
Pulmonary Tuberculosis	2	7	9	77.78	46.13
Tuberculosis (other forms)	—	3	3	100.00	—
Pneumonia (all forms)	37	22	59	37.29	33.73
Puerperal Fever	—	—	—	—	—
Chicken Pox	—	—	—	—	—
Cerebro Spinal Fever	—	—	—	—	—
Acute Poliomyelitis	—	—	—	—	—
Encephalitis Lethargica	—	—	—	—	—
Malaria	—	—	—	—	—
Total	39	36	75	48.00	36.08

Premises, &c., Disinfected for Infectious Diseases and Vermin, 1958

Diseases	Premises Sprayed
Pneumonia	14
Tubercculosis	63
Enteric Fever	23
Diphtheria	15
Puerperal Fever	—
Ophthalmia Neonatorum	11
Chicken Pox	39
Poliomyelitis	3
Cerebro Spinal Fever	—
Leprosy	—
Encephalitis Lethargica	—
TOTAL	168
Vermin	409

12,580 Cesspits were sprayed with a mixture of crude and distillate oils (free of charge) as a routine measure of prevention against spread of the bowel-filth diseases.

Tuberculosis

PULMONARY TUBERCULOSIS

Special mention has always been made of this infectious disease and a special section devoted to it because of the special circumstances attaching to this disease in a mixed population such as that of the City of Port-of-Spain, and more especially because of the fact that in the early days of the history of the Local Sanitary Authority, it occupied a very high position in the mortality list of all diseases occurring within the limits of the City.

In the year 1937 when I assumed the reins of office in the Public Health Department, pulmonary tuberculosis occupied third place in the mortality list attributable to all causes, only cardiac and vascular diseases, and senility claiming more victims. In that year the number of notifications of this disease received at the Department totalled 131 and the number of deaths certified 142, 11 more deaths than notifications, a not uncommon state of affairs in the early years of the history of the Local Sanitary Authority. Tuberculosis then was a dread disease, a scourge, and the fear and despair associated with the contraction of the disease drove the sufferers underground away from doctor and other public health workers only to be discovered again when the final scene was being enacted and there was need for a death certificate to enable the victim to be buried. The unfortunate family looked upon the disease as a great tragedy, an affliction from above, and as such there was no other course to be adopted than to face the consequences and await the fatal day. In those days the number of cases that came under the personal notice of the public health officer, which survived a two-year period of existence could be counted on the fingers of both hands. There were in those days, of course, no remedy effective against the disease, no sanatorium, no proper hospital for the isolation of cases in an advanced state of infection. It is true that the PH Ward of the Colonial Hospital was open to all cases but it was looked upon as a Ward for the dead and dying—the " past hope " ward.

Compare this state of affairs with the position today when in the year under report only 75 cases of pulmonary tuberculosis were notified and only nine returns in which the cause of death was certified as pulmonary tuberculosis, were received. Nine deaths in the Urban Sanitary District due to pulmonary tuberculosis is the lowest ever recorded in the annals of the history of the disease, but the death rate in the last 10 years has been steadily diminishing and the number of deaths in the last five years has been 14.2 on the average.

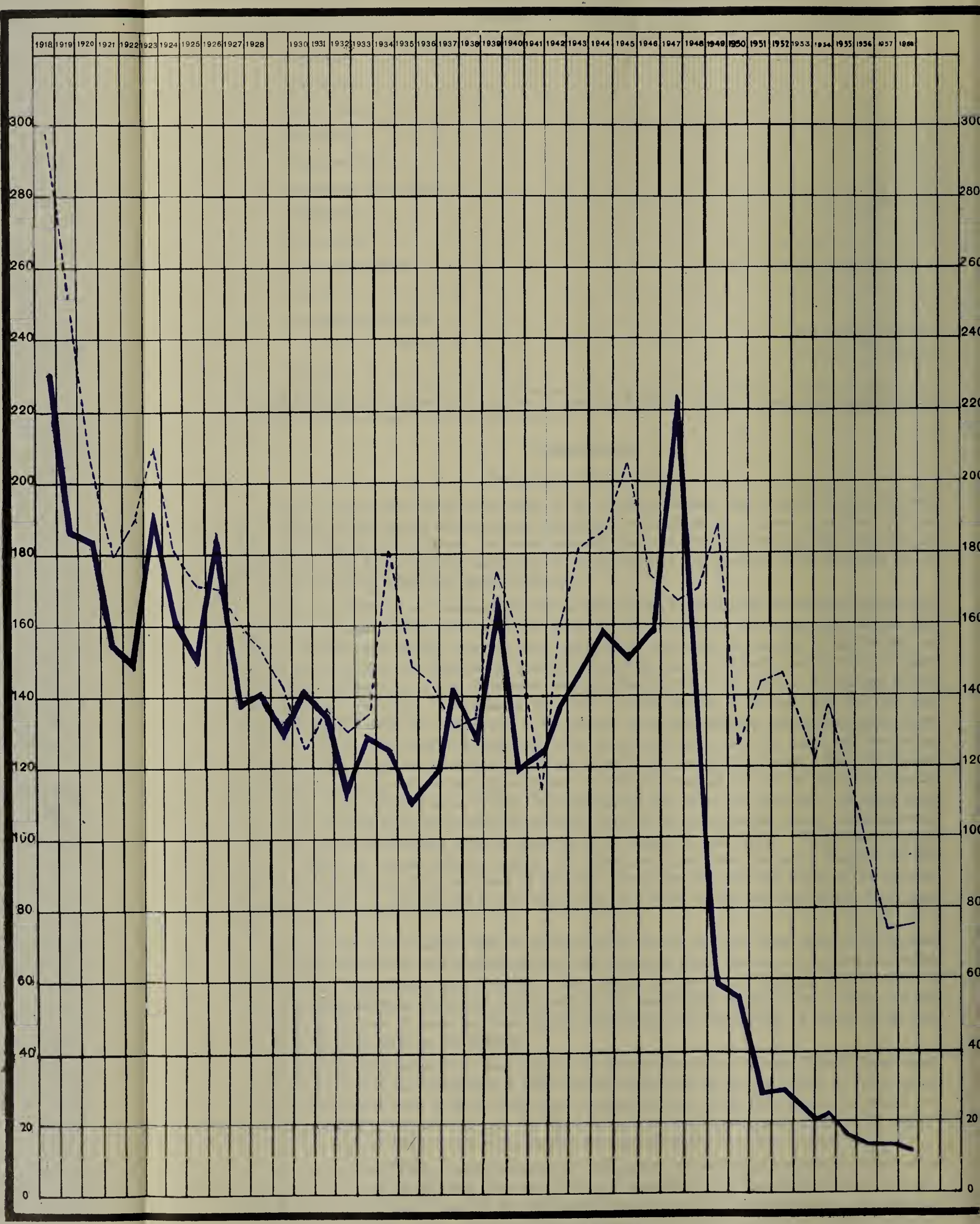
Such has been the value of the work done by the Tuberculosis Division of the Health Department of Government which was established in 1946 and the Association for the prevention of Tuberculosis which received a new lease of life in 1948 when a proper division of the functions to be carried out by each organisation was effected, and the two bodies succeeded in settling down to work, side by side, in a determined drive to reduce the incidence of and mortality from tuberculosis.

The work of the Public Health Department represents a sort of liaison between the two bodies mentioned above, and our sanitary inspectors are mainly concerned with the detection of contacts and their reference to the Chest Clinic of the Caribbean Medical Centre, the improvement of the environmental hygiene of home and surroundings, the repair and sometimes reconstruction of the dilapidated dwellings to which the cured case has to return, and occasionally to searching for the lapsed cases and insuring their return normally by the method of persuasion but sometimes by force, to the Chest Clinic or the Masson Hospital.

CHART H

Port-of-Spain

Pulmonary Tuberculosis—Notifications and Deaths 1918- 1958



The lines along which future work must be directed are becoming clearer with each pasing year. There must be continuous propaganda to dispel the fecling of over confidence that Tuberculosis has been eliminated from the community, to secure the early examination and treatment of the cases that are still occurring and their removal to hospital or sanatorium, to enlist the co-operation of the general practitioner to ensure that cases be referred to the Division dealing with this disease at the earliest opportunity, and particularly must efforts be made and funds provided to effect the rehabilitation of the cured case so that he may be able once more to earn a living and to share, within limits, in the activities of the community. Add to this the general preventive measures directed to the elimination of bad housing accommodation, to the improvement of sanitation and to the provision of clean, wholesome, and cheap food within the reach of the pockets of those in the lowest income bracket, in which the Local Sanitary Authority and the Central Government play the major part.

Pulmonary Tuberculosis—Notifications and Deaths, 1918-58

Period	Notifications	Deaths	Death Rate per 100,000 Population
Year 1918	299	233	343
Yearly Averages:			
1919–23	207	173.2	265
1924–28	167.6	154.6	238
1929–33	133.6	12.9	185
1934–38	147.4	124.6	162
Average 1919–38	163.9	145.4	213
Year 1939	175	167	185
1940	155	118	128
1941	113	124	127
1942	157	136	137
1943	182	148	145
1944	186	158	152
1945	206	140	141
1946	173	158	157
1947	222	167	174
1948	170	108	109
1949	189	58	57
1950	127	55	53
1951	143	27	25
1952	147	28	26
1953	122	20	18
1954	137	22	19
1955	120	14	12
1956	85	13	11
1957	73	13	11
1958	75	9	7

Non-Pulmonary Tuberculosis

I have in previous reports referred to this special form of tuberculosis because of the bearing that it has on the public health and because of the fact that it is capable of being eliminated by the application of well known preventive measures. Non-pulmonary tuberculosis of various organs of the human body carries with it a high mortality and in some cases like tuberculosis of the meninges the mortality is about 100 per cent., but seeing that it is usually due to the bovine type of bacillus which is conveyed in the milk and flesh of bovines, effective meat inspection and the boiling or proper pasteurization of milk can have a profound effect on the incidence of the disease. Add to this the regular tuberculin testing of bovines, the destruction of affected herds and the ante-mortem inspection of cattle prior to slaughter, and this form of tuberculosis is certain to show a diminishing incidence in proportion to the persistence and the thoroughness with which these measures are applied.

Non-Pulmonary Tuberculosis—Forms, Notifications and Deaths, 1958

Forms	Notifications	Deaths
Miliary Tuberculosis	—	1
Tuberculosis of Meninges	3	2
Do. Spine and Bones	—	—
Do. Peritoneum	—	—
Do. Larynx	—	—
Total	3	3

Deaths from Non-Pulmonary Tuberculosis, 1924-1958

Period	Deaths	Rate per 100,000 Population
Yearly Averages :		
1924–28	15	23
1929–33	15.2	22
1934–38	10	13
Average 1924–38	13.4	19
Year 1939	15	17
1940	14	15
1941	6	6
1942	4	4
1943	9	9
1944	10	10
1945	13	12
1946	14	14
1947	11	11
1948	6	6
1949	10	10
1950	14	13
1951	7	7
1952	12	11
1953	6	5
1954	4	3
1955	3	3
1956	3	2
1957	—	—
1958	3	2

ENTERIC FEVER

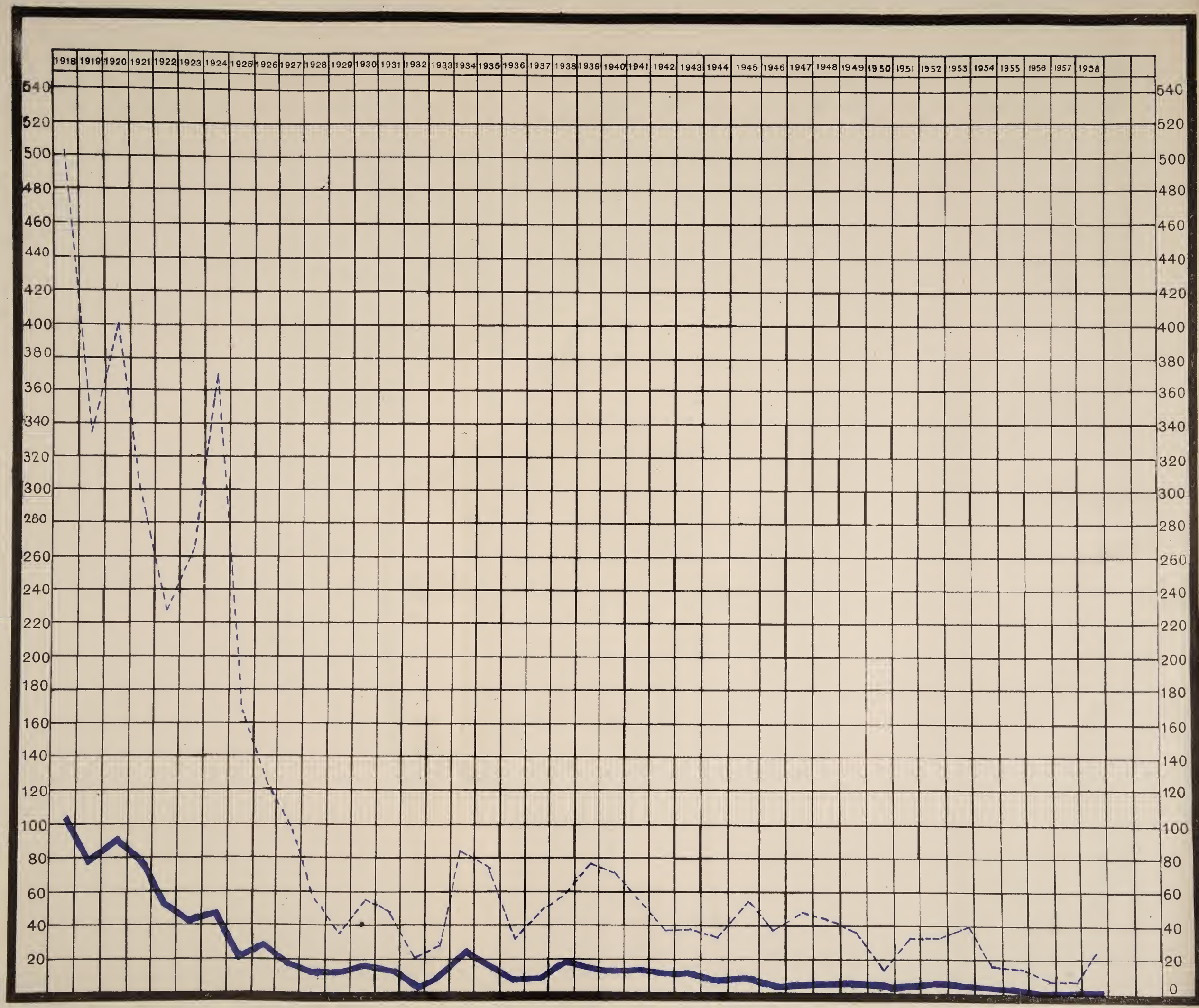
This is an infectious disease to which public health officers devote the greatest study and attention because of the important relation that a high incidence of and death rate from typhoid fever has to the general state of environmental hygiene obtaining in the area in question. For it is an undoubted fact that where the general state of sanitation is poor and particularly where the disposal of sewage is so inefficient that contaminated faecal matter can find its way either through the consumption of contaminated foodstuffs, or by the drinking of infected water into the alimentary tract of the individual, there will invariably be found a high incidence of typhoid fever and a correspondingly high death rate.

The aim of all modern methods of sanitation and of the water-borne method of sewage disposal is to lower the incidence of the bowel-filth diseases of which typhoid is perhaps the most important, and eventually to eliminate them altogether. The water-borne sewerage system ensures the speedy removal of faecal matter and particularly infected faecal matter from inhabited premises and their ultimate disposal in a place where they can exert no harmful effects. It is obvious that any system of conservancy which permits faecal matter to be retained in and about premises carries with it the grave potential risk that the faecal matter, if by any chance it happens to be infected, may cause the spread of typhoid fever, dysentery and other bowel-filth diseases.

In the City of Port-of-Spain where less than one-half of the Urban Sanitary District is sewered, there still remains the privy cesspit system of disposal with a certain number of premises served by local sewage disposal systems, septic tanks, or what is much more usual, cesspools. It is clear, therefore, that in these unsewered areas the risk of the spread of typhoid fever is a real one, a risk that is ever present but which the Public Health Department seeks to diminish by the constant oiling and disinfecting of these areas, which is part of the regular routine work carried out by the operatives of the Oiling Unit of the Department, but which is intensified and amplified whenever a case of typhoid fever occurs in the district. In these circumstances oiling of all privy cesspits within a radius of a mile is immediately undertaken in addition to the measures of disinfection applied to the premises themselves where the case occurred and to the particular pit itself where it is almost certain that

CHART I
Port-of-Spain

Enteric Fever—Notifications and Deaths 1918-1958



infected faecal matter has been deposited. By these and other measures which include the active immunization of contacts and others with anti-typhoid vaccine and the campaign designed to secure clean, wholesome, and uncontaminated foodstuffs, particularly those of the green variety, the incidence of typhoid fever has been lowered and fewer and fewer cases are occurring each year, but if typhoid fever is to be eliminated entirely from the City of Port-of-Spain, the whole of the City will have, of necessity, to be sewered and a sufficiency of water supplied for the regular flushing of lavatories and the removal of all contaminated matter from the affected premises. It is a matter of interest to determine the source of the cases of typhoid fever that are now occurring within the limits of the City. It is fairly certain that typhoid fever such as it occurs in the City is not water-borne, the incidence of these cases being entirely sporadic, and not at all bearing any resemblance to the more explosive features of a water-borne epidemic; in addition the water supply is made and kept potable by the chlorination of all sources and by the maintenance of a small "residual" in the distribution system to make sure that any possible contamination of the distribution system can be dealt with immediately. The cases of typhoid fever that do occur, are in the large majority of instances almost certainly due to the consumption of infected foodstuffs, particularly that type of foodstuff which is usually eaten raw, like watercress, cabbage, lettuce, spinach, tomatoes, &c., the vegetable gardens from which they are derived being often manured with human excrement. A few are contacts to cases which have either been neglected or missed or not diagnosed early enough to enable effective preventive measures to be undertaken.

The number of cases that was notified to the Department in the year under report was 23 and the number of deaths certified to the disease was 2. This number was about two and a half times the number of cases that occurred in 1956 and in 1957. During the previous five years, the average number of cases of typhoid fever which occurred within the limits of the City was 14.

ENTERIC FEVER

Notifications and Deaths, 1918-1958

Period	Notifications	Deaths	Death Rate per 100,000 Population
Year 1918	495	104	152
Yearly Averages :			
1919–23	301.8	67.8	103
1924–28	162.28	25.2	39
1929–33	37	10.8	16
1934–38	59.8	14.6	19
Average 1919–38	140.3	29.6	44
Year 1939	75	15	17
1940	70	11	12
1941	56	14	14
1942	37	12	12
1943	38	12	12
1944	32	9	9
1945	55	10	9
1946	37	8	8
1947	68	7	7
1948	42	5	5
1949	36	5	5
1950	14	3	3
1951	32	5	5
1952	32	8	7
1953	36	3	3
1954	15	3	3
1955	13	1	1
1956	9	—	—
1957	9	—	—
1958	2.3	2	2

Inoculation of Enteric Fever Contacts, 1958

T.A.B. Injections

Year	Number Receiving one Injection	Number Receiving two Injections	Total
1947	250	222	472
1948	85	61	146
1949	101	44	145
1950	64	32	96
1951	329	249	578
1952	66	26	92
1953	213	146	*359
1954	101	46	147
1955	50	21	71
1956	43	10	53
1957	40	27	67
1958	412	249	661

*Mass inoculations were carried out during the 1953 outbreak of Enteric Fever at Arima and 8,250 City inhabitants, in addition, were inoculated.

Pneumonia

Pneumonia in its two forms, lobar and broncho pneumonia, is an infectious disease that is notifiable but it is what is termed colloquially " badly notified". Practitioners do not understand the reason why a disease which in the majority of cases nowadays is so amenable to the newer drugs like the sulpha drugs and to antibiotics like penicillin, streptomycin, aureomycin, &c., and which is usually kept at home under the care of the practitioner who has notified the case, and for which very little in the way of preventive measures is available, has perforce to be notified to public health officers who take perhaps only a casual and passing notice of the case. And so practitioners have never in the history of the Urban Sanitary District been known to notify each and every case of pneumonia encountered in the course of their practice with the care and the despatch they are bound, by statute, to do, and there must be many cases of pneumonia which are left unnotified and so not known to the Department which is therefore handicapped in its efforts to check the spread of the disease. But the answer is that in the days when pneumonia was proclaimed a notifiable disease it constituted a real menace to the health of the residents of the City, and because of the congestion and overcrowing of the East Dry River, Belmont and St. James Sub-districts where the majority of cases occurred, spread of the disease from person to person by direct contact was not an uncommon feature. Besides it was then often necessary, and at times it still is today, to remove cases from these districts to hospital not only for the sake of the ailing patient himself but also to enable proper isolation to be effected and to permit disinfection to be undertaken by the Disinfection Unit of the Department. In those cases where housing accommodation is so inadequate and where poverty and malnutrition are so prevalent, coupled with alcoholism which has such an adverse effect on the outcome of the disease, pneumonia in its various forms is a serious disease with a high mortality often bringing in its trail such sequelae as consumption, heart disease, anaemia and debility. It is in these circumstances that preventive measures are so important, and a " stitch " in time may be the means of preventing the occurrence of many more cases and so of obviating much subsequent suffering and misery.

In the year under report 22 cases of pneumonia (all forms) were notified and 59 deaths certified which shows clearly that many cases of pneumonia remain unnotified, especially when it is remembered that the mortality from this disease has been reduced considerably since the introduction of the newer drugs and the antibiotics already referred to. Many of these cases of pneumonia are what are described as " terminal cases " i.e. the disease develops as the final complication of a general disease which has laid the patient low, and compelled his lying flat in bed. These weakened and debilitated patients who are in the majority of cases on the old side, and have been ailing for some time fall easy prey to " hypostatic " pneumonia and they hardly survive more than 72 or 96 hours. In these circumstances it is the death that is usually certified by the practitioner, the question of notification never entering his mind at all.

PNEUMONIA—(All Forms)

Notifications and Deaths, 1922-58

Period	Notifications	Deaths	Death Rate per 100,000 Population
Yearly Averages :			
1922–26	111.8	78	123
1927–31	69.8	53.4	79
1932–36	155.4	80.6	110
Average 1922–36	112.3	70.7	104
Year 1937	125	85	110
1938	101	70	83
1939	107	59	65
1940	69	63	68
1941	138	88	90
Average 1937–41	108	73	83
Year 1942	332	152	153
1943	251	149	146
1944	109	97	93
1945	118	79	74
1946	87	61	61
1947	75	64	67
1948	62	51	52
1949	73	74	73
1950	64	54	52
1951	81	80	75
1952	68	72	66
1953	46	52	47
1954	48	58	51
1955	39	65	56
1956	38	67	56
1957	27	83	69
1958	22	59	49

Diphtheria

As I have stated before in previous annual reports, diphtheria is an infectious disease that is becoming a source of anxiety to public health workers all over the country and Medical Officers of Health are having to answer more and more questions from parents who are getting more and more conscious of the seriousness of the disease. More and more cases are making their appearance in the Urban Sanitary District and though the disease remains predominantly of the mild type, yet cases are apt to be missed because the diagnosis is not always borne in mind in any and every case of throat trouble, and deaths are apt to occur from the involvement of the larynx.

The position is such that a campaign of active immunization will soon have to be undertaken in schools and clinics, a course that could hardly have been justified 10 or 15 years ago in view of the small number of cases occurring and the general mildness of the disease.

There is no difficulty nowadays in getting contacts to come willingly and promptly to the Department for protection against the disease, and it is customary to actively immunize all such contacts, two doses of APT being given to children and three doses of T.A.F. to adults. This is considered preferable to giving antitoxic serum which confers a passive immunity only of short duration, tends to the development of antitoxic and anaphylactic reactions later on if serum has to be administered to the developed case, and may serve to mask the development of the clinical cases making them more dangerous as carriers of the disease.

During the year under report 14 cases of diphtheria were notified and 2 deaths certified. The largest number of cases notified was in the year 1939 when 61 cases were notified with 2 deaths, and the greatest number of deaths certified to the disease was in 1945 when 5 deaths were certified and 20 cases notified.

DIPHTHERIA

Notifications and Deaths, 1917–58

Period	Notifications	Deaths	Death Rate per 100,000 Population
Yearly Averages :			
1917–21	11.8	1.4	2
1922–26	14.8	2	3
1927–31	23.8	1.6	2
1932–36	29.8	2.2	3
Average 1917–36	20	1.8	3
Year 1937	30	4	5
1938	16	3	4
1939	61	2	2
1940	37	2	2
1941	30	2	2
Average 1937–41	34.8	2.6	3
Year 1942	18	3	3
1943	40	4	4
1944	19	3	3
1945	20	5	5
1946	22	2	2
1947	23	2	2
1948	9	1	1
1949	11	2	2
1950	37	3	3
1951	28	1	1
1952	20	1	1
1953	33	1	1
1954	26	1	1
1955	20	1	1
1956	17	—	—
1957	19	1	1
1958	14	2	2

Chicken Pox

Chicken Pox is not an infectious disease that normally gives rise to much worry or concern to public health officers ; cases are usually mild and straightforward and there has never been a return received in the Department where chicken pox was the principal cause of death ; this, of course, is possible in weak and debilitated children when complications like broncho-pneumonia or encephalitis set in, but ever since the establishment of the Local Authority which enabled statistics to be carefully collected and properly compiled chicken pox has never been responsible for a single death.

The real reason why it is important to notify a case of chicken pox is because a mild case of small pox may, every now and then, simulate closely a case of chicken pox and diagnosed as such with the dire consequences of a missed case of small pox and all its subsequent effects. That is why medical officers of health try to see as many cases of chicken pox as possible and would like, if the necessary

beds were available, to have as many cases as possible of chicken pox removed to hospital for observation and treatment, especially if the dwelling is overcrowded and two or more cases have already occurred and more are likely to occur.

In certain rare instances it is imperative that a case of chicken pox be removed to hospital such as occurred when a foreigner who was once staying in the largest hotel of the City developed chicken pox and he refused to leave his hotel room for quarters where he could be more effectively isolated.

In the year under report 45 cases of chicken pox were notified which is the smallest number notified during the past five years.

CHICKEN POX

Notifications, 1924–58

Period	Notifications	Period	Notifications
Yearly Averages :			
1924–28	19.8	Year 1949	57
1929–33	41	1950	96
1934–38	110.4	1951	95
1939–43	42.6	1952	94
1944–48	91.8	1953	51
		1954	133
		1955	113
		1956	101
		1957	110
		1957	110
		1958	45

Malaria

The position in regard to malaria, which is now a notifiable infectious disease and which was declared notifiable in March, 1956 for the specific purpose of ascertaining as far as possible the exact incidence of malaria in the Colony, remained substantially the same in 1958 as it was in the previous year and which was detailed in my report for the year 1957.

To repeat, there is very little malaria within the limits of the City and what there is, is due to importation from outside, i.e., cases which have acquired malaria outside the City and which have come into the City for treatment, and old febricitants who once lived in a malarious area but who have now taken up residence within the City's limits and who get periodic recrudescences due to the lowering of resistance of an infection that was never really eradicated.

That is not saying that no anophelene mosquitoes are to be found within the City's limits; in the wet season particularly it is possible to pick up mosquito larvae of the anophelene species in the swampy areas at the extreme eastern and western limits of the City but these have never created a problem as they have always been easily brought under control by the time-honoured measures of oiling, draining, cutlassing, &c.

In so far as the malaria problem of the Colony is concerned the facts are that malaria is with each succeeding year becoming less and less a public health problem, and the accent now is on malaria eradication to attain which there is a well planned and properly directed campaign in actual execution at the time I write, and the results being achieved bid fair to get rid of any malaria carrying anophelines, and to reduce the malaria problem to one of complete insignificance.

In so far as the areas that adjoin the City are concerned, I have in previous reports recorded the fact that the Laventille Swamp together with the contiguous Success Village which were at one time a hot-bed for the breeding of malaria mosquitoes and in which latter village there occurred many cases of malignant malaria can now be considered free of malaria, and a source of great potential danger to the City has been eliminated. The same cannot be stated, however, in so far as the Cocorite Swamp is concerned. It is true that this swamp and the adjoining areas are kept under the close supervision of and are subjected to the effective control of, the Malaria Division of the Health Department of Government, but the works that are executed here, in which the Public Health Department of the City assumes its share of responsibility, are of a temporary nature only and the permanent major works of swamp reclamation, which I have been advocating year in year out, have not yet been undertaken, a project that would result in the laying out of a large number of building lots and in the development of a residential area destined to relieve the acute congestion and the serious shortage of housing accommodation that now affects the City and its suburbs.

I would be failing in my duty were I not to record the gratitude of the Local Sanitary Authority to the Malaria Division of the Health Department of Government for the active co-operation and ready assistance given in all the many and varied mosquito problems that affect the City.

Malaria will soon become a rarity because of the energy and the despatch with which a major public health problem has been and is being tackled. The benefits to industry in the saving of a considerable number of man-hours previously lost, to agriculture in the opening up to commercial intercourse and to cultivation of areas once heavily infected with malaria, to animal husbandry in the increased incentive given to the rearing of cattle, pigs and sheep, will constitute, when they are fully appreciated, one of the major advances in health, welfare, and happiness that public health measures have succeeded in achieving.

The work of the anophelene and culex sections of the Anti-Mosquito Unit of the Public Health Department continued unabated in the year under report, and it is obvious that these workers must always be on the alert and must persevere with their day-to-day routine if the position won after so many years of consistent effort devoted to the elimination of potential anophelene breeding grounds is to be maintained.

No death return, in which the cause of death was certified to be malaria, was received at the Department during the year under report.

Malaria—Local Distribution of Deaths, 1949–1958

Sub-Districts	Deaths									
	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
City Proper ...	1	—	—	—	—	—	—	—	—	—
St. Clair	—	—	—	—	—	—	—	—	—	—
East Dry River ...	—	—	—	—	—	—	—	—	—	—
Belmont	—	—	—	—	—	—	—	—	—	—
Woodbrook ...	—	—	—	—	—	—	—	1	—	—
St. James ...	—	—	1	—	—	1	—	—	—	—
Total ...	1	—	1	—	—	1	—	1	—	—

Acute Anterior Poliomyelitis

The number of cases of this infectious disease, which can produce such crippling defects and which is responsible for so much fear and alarm on the part of the family in which a case occurs, and even on the general public, totalled five in the year under report. No deaths were certified.

Since 1954 when a small outbreak occurred in the City and which resulted in 35 cases being notified, the incidence of this disease has not been high, though 13 cases were reported in 1957.

The Vaccination Programme with the Salk Vaccine in 1954 fell short of requirements due to the supply of vaccine being insufficient to administer the full course recommended, and enquiries continue to be made every month at the Public Health Department as to the possibility of getting full courses of the vaccine free of cost, the price of which under existing circumstances is outside the reach of the pocket of the low income bracket worker.

ACUTE ANTERIOR POLIOMYELITIS

Notifications and Deaths, 1927–58

Year	No. of Cases Reported	Deaths	Year	No. of Cases Reported	Deaths
1927–29	—	—	1945	—	1
1930	5	1	1946	1	—
1931	—	2	1947	—	1
1932	3	—	1948	3	2
1933–35	—	—	1949	4	—
1936	3	—	1950	—	—
1937	10	1	1951	—	—
1938	2	—	1952	3	—
1939	1	—	1953	—	—
1940	—	—	1954	35	—
1941	15	4	1955	2	—
1942	26	3	1956	—	—
1943–44	—	—	1957	13	—
			1958	5	—

Other Notifiable Infectious Diseases

No notifications of Encephalitis Lethargica or of Paralytic Rabies reached this Department in the year 1958. No cases of the dangerous infectious diseases i.e. Plague, Cholera, Typhus, Yellow Fever or of Small Pox, either Variola Major or Variola Minor (Alastrim) were reported to the Department during the year under report.

NON-NOTIFIABLE INFECTIOUS DISEASES

There is no definite scientific reason why some diseases are classified as " notifiable " infectious diseases and others as " non-notifiable " infectious diseases. In fact some of the diseases listed under the heading of non-notifiable may be much more infectious than some of those classified as notifiable, and in times of unusual prevalence may even be proclaimed " notifiable ", in order to give public health authorities an opportunity of determining where and in what numbers they are occurring so that preventive measures directed to limiting their spread as well as to preventing their incidence altogether might be applied at the earliest possible opportunity, such as is the case with measles, whooping cough, and influenza.

These diseases can, on occasions, present major public health problems that tax the energy and resources of public health authorities. Several pandemic waves of influenza have been known to sweep the entire world leaving numbers of deaths in their trail. Then again the more chronic of the diseases usually listed under this heading are the cause of the major public health problems which affect the civilized world at the present time, and to solve which extensive and costly public health schemes have been prepared by various health organisations including the World Health Organisation, and are in the process of being actively executed by many of the countries of the world. I refer to syphilis, leprosy, and hookworm disease. Large amounts of money are being spent now in nearly every country on one or other of these comprehensive schemes designed to get rid of one or other or of all these diseases.

Bearing these facts in mind it seems a mistake to rely on the death returns only in order to form some idea of the prevalence of these diseases, returns which indicate inadequately the existence of the diseases in the community, seeing that many deaths attributable to them masquerade under other labels like aneurysm, cerebral thrombosis, hemiplegia, aortic regurgitation, which are very often due to syphilis ; liver abscess which is often due to dysentery ; anaemia which is the invariable result of hookworm disease, and liver disease which is sometimes the after effect of malaria.

It is not possible to state with any degree of certainty how prevalent these diseases are in the Urban Sanitary District seeing that only the death returns are available to the Department, and with the increasing success that is attending treatment with the newer drugs, it is clear that the mortality from these diseases is getting lower and lower, but there can be no doubt that these diseases do occur in fair numbers within the limits of the City and are responsible for a good deal of illness and disability ,facts which could be ascertained with some degree of accuracy if a proper system of notification were in vogue.

Non-Notifiable Infectious Diseases—Home and Hospital Deaths, 1958

Diseases	Deaths			Hospital Deaths per cent of Total Deaths	Corresponding Percentage for the year 1957
	At Home	At Hospital	Total		
Whooping Cough	—	—	—	—	—
Influenza	1	—	1	—	—
Dysentery	—	2	2	100.00	100.00
Ankylostomiasis	—	—	—	—	—
Syphilis	13	4	17	23.53	53.85
Leprosy	—	—	—	—	—
Total	14	6	20	30.00	38.10

Syphilis

The Venereal Disease campaign initiated by Government with the help and advice, and under the direction of, Colonel O. C. Wenger in 1943, and supported then by funds provided by the Development and Welfare Organisation but now under the sole care, control and direction of the Venereal Diseases Division of the Health Department of Government continued to function satisfactorily during the year under report. The Caribbean Medical Centre which is now situated in the old U.S.O. Building in Wrightson Road remains a great boon to the residents of the City and more and more enquiries are being made at the Public Health Department by persons who desire the help, advice, and guidance of the Centre.

The results of the activities of the Department generally and of the propaganda that is being actively undertaken to educate the City's population to the ravages of venereal diseases particularly, have been so successful that it is difficult nowadays to encounter a case of primary syphilis and fewer and fewer food handlers are found to be suffering from venereal disease with each succeeding year.

There is little doubt, however, that the main source nowadays of venereal disease is the large number of prostitutes who frequent the night clubs of the City and who are without proper medical care and attention, and the problem that still awaits complete solution is how to round up and bring in for treatment those recalcitrant cases that are either ignorant of the harm that they are capable of doing to themselves and to others, or who are actually perverse in the persistent efforts they make to spread the disease, in spite of the knowledge that they are in a highly infectious state. Persuasion seems to have had very little effect on these people and often one feels that effective control can be attained only by a system of compulsory notification. This, however, is a matter of great complexity seeing that there are a number of factors involved such as the possibility of driving the disease underground, the question of economic difficulties, as well as the related sociological problems that would affect doctors, nurses, and the State.

One important result that is being achieved by the Venereal Diseases Division is the compiling of reliable statistics which has been brought about by the possibility of more accurate diagnosis on the one hand and by a greater appreciation of the underlying basic causes of certain clinical manifestations on the other hand, and as a direct result syphilis is being more and more recognised as playing a greater and greater part in those chronic diseases that affect the heart and blood vessels, like aneurysm, aortic regurgitation, coronary thrombosis and arteriosclerosis ; the brain and spinal cord, like cerebral thrombosis, hemiplegia, meningitis ; the kidneys and liver, like chronic nephritis and cirrhosis of the liver. Adequate treatment of the underlying disease is likely to go a long way in preventing and even in eliminating those various clinical manifestations which are of such serious import. It has become clear, too, that a campaign directed to the prevention of these diseases by educating the prospective victims to the dangers of these venereal diseases and by what means they can be acquired, how they can be prevented, what facilities exist for early and effective treatment, and how their spread can be prevented, would pay handsome dividends.

It is gratifying to be able to record that such is the nature of the work that is being undertaken and actively executed by the Venereal Diseases Division and the Health Education Division of the Health Department of Government and the results of their combined efforts are so successful, that a big dent has been made in the venereal diseases problem in the City and in the Colony as a whole.

Deaths from Syphilis, 1918-58

Period	Deaths	Rate per 100,000 Population
Yearly Averages:		
1918–22	16.2	24
1923–27	56.8	88
1928–32	28.2	41
1933–37	21.8	29
Average 1918–37	24.6	37
Yearly Average 1938–42	24.6	27
1943	29	28
1944	36	35
1945	22	21
1946	20	20
1947	21	22
1948	8	8
1949	7	7
1950	8	8
1951	11	10
1952	6	5
1953	7	6
1954	8	7
1955	13	10
1956	18	15
1957	13	11
1958	17	14

Dysentery, Diarrhoea and Enteritis

These infectious diseases are usually considered together and the only reason, perhaps, why this is done is due to the fact that their method of spread follows a common pattern, i.e., the intestinal infection of man by swallowing excreta contaminated with the causative organisms. Though these organisms vary, being bacilli of the food poisoning type i.e., salmonella sometimes, true dysentery bacilli at other times, and protozoa occasionally, in order to initiate the disease these organisms must find their way via the mouth to the intestinal tract of man and this is generally done through the medium of contaminated foodstuffs particularly those of the green variety that are usually eaten raw or partially cooked and those of the made-up variety that are subjected to much handling like ice cream, mayonnaise, pies, sausage, pastry, &c. It also does happen on occasions that tinned

foodstuff is the vehicle whereby these infections are introduced into the body, particularly tinned foodstuffs that are in the early stage of blowing, due to improper and inadequate processing. Transmission from case to case by fingers and fomites is, of course, a possibility, if those who are attending or nursing a case of these diseases are not careful about disinfecting and washing their fingers thoroughly before partaking of food or are victims of that disgusting habit of licking or sucking the fingers, but this method of spread is rare and exceptional.

Inaccurate and incomplete certification of the causes of deaths may cause returns to be labelled dysentery or diarrhoea when the basic underlying cause is cancer of the bowel or intestinal tuberculosis, but these errors are rarely met with nowadays with the greater care that is being exhibited in the certification of causes of death since the adoption of the International Classification of 150 causes of morbidity and mortality particularly.

The diarrhoea and enteritis of infants appears to be a disease *sui generis* and is caused by organisms of either the food poisoning or dysentery variety. It appears certain that the vehicle of transmission is contaminated milk or liquid food in which fresh milk or dried milk or condensed milk forms the essential part. Exposure of this type of food to the dirt, dust, and germs of the atmosphere in an open kitchen or pantry where the temperature is suitable for the rapid multiplication of organisms almost invariably leads to contamination. It is important to bear in mind that milk foods are very susceptible to contamination and should be consumed almost as soon as they are prepared and the greatest care given to bottles, spoons, saucers, cups. and last but not least to the hands of those in attendance upon infants and young children. That flies play some part is almost certain seeing that these cases are more prevalent whenever there is an outbreak of fly nuisance, such as occurs during the early dry season in poorly sanitated areas where there is an accumulation of vegetable or animal organic matter with the necessary moisture to provide the medium suitable for the hatching out of fly larvae. Infants and children in these areas fall easy prey to the disease and seeing that it is in these areas the poorer sections of the community live, in whom undernourishment and malnutrition are common findings, it is not surprising that the disease exacts such a high toll of mortality.

There appears also to be some connection between the disease and the privy cesspit system of sewage disposal, for analysis of the death returns in which diarrhoea and enteritis was certified to be the cause of death proves conclusively that, by far, more infants and children succumb to this disease in the unsewered areas. It is in these areas that the link between non-fly-proof privy cesspit and exposed foodstuffs is so easily supplied by the domestic housefly, whose breeding place is invariably in the heaps of vegetable and organic matter than can usually be found on these premises.

Preventive measures designed to secure clean, wholesome food; milk and ice cream that is effectively pasteurised; and generally to prevent the contamination of foodstuffs with dirt, dust, vermin, flies and other insects; and at the same time to improve the general level of environmental hygiene, with the diminution of congestion and overcrowding; and last but not least the elimination of the privy cesspit system by the substitution of a water borne sewage system, are an urgent necessity if the number of cases in this group of diseases is to be substantially reduced.

During the year under report, 104 deaths certified to diarrhoea and enteritis were recorded,the largest number since the five-year period 1919–1923, when on an average, 143.6 deaths per year were certified to this disease.

There was a definite outbreak of this disease of infants and children and large numbers of cases were admitted to the General Hospital often in the last stages of dehydration, when death was the inevitable outcome. Analysis of the returns, sub-district by sub-district, again demonstrated the constant finding that the unsewered areas of the City furnished the largest number of cases, 73 as against 31, in the sewered areas. Of these latter, 25 were in the City Proper, where overcrowding and congestion are at their worst and where the barrack system still persists to a great extent. The causes of this outbreak have not yet been fully elucidated but investigation is continuing and this matter is being made the subject of epidemiological study.

Deaths from the Dysenteries, 1918-58

Period	Deaths	Death Rates per 100,000 Population
Year 1918	43	63
Yearly Averages:		
1919–23	38.2	58
1924–28	32	49
1929–33	14.8	21
1934–38	5.4	7
1939–43	7.4	8
1944–48	3	3
Average 1919–48	16.8	23
Year 1949	1	1
1950	2	2
1951	1	1
1952	3	3
1953	3	3
1954	2	2
1955	—	—
1956	3	2
1957	1	1
1958	2	2

Deaths from Diarrhoea and Enteritis—1918-58

Period	Deaths	Death Rates per 100,000 population
Year 1918	193	284
Yearly Averages :		
1919–23	143.6	218
1924–28	72.8	112
1929–33	52.8	76
1934–38	40	52
1939–43	78.4	81
1944–48	46	44
Average 1918–48	76.16	103
Year 1949	30	30
1950	37	35
1951	42	39
1952	39	36
1953	58	51
1954	37	32
1955	45	38
1956	57	47
1957	35	29
1958	104	86

Diarrhoea and Enteritis—Deaths in Sub-Districts, 1958

Sub-districts	Deaths
City Proper	25
St. Clair	3
East Dry River	30
Belmont	19
Woodbrook	3
St. James	24
Total	104

OTHER PRINCIPAL CAUSES OF DEATH

Cardiac and Vascular Diseases

The toll of mortality exacted by cardiac and vascular diseases continued unabated during the year under report and the same fact must once more be recorded viz. : that whilst more and more victims are being claimed by these diseases, the causes for this persistent attack on the delicate tissues of the heart and blood vessels are not sufficiently clear to enable preventive measures to be applied with the certainty that carries conviction. It is true that in a certain number of persons who have fallen victims to these diseases, antecedent causes like syphilis, chronic kidney disease, chronic liver disease, chronic alcoholism, rheumatic fever, certain infectious diseases, &c., have been known to be at work, but in the large majority of cases the causes remain obscure and the problem why these delicate tissues of heart and bloodvessels have been attacked with such disastrous results must in the present state of our knowledge remain unanswered. Certain it is that the stresses and strains of modern life : the anxiety, worry and often uncertainty associated with the day's work, coupled with the pace of living which leaves so little time for rest and recreation do play their part in aggravating existing diseases, but why one set of tissues seem to be immune and another set so easily affected is a problem that still awaits solution.

It would appear that the price that has to be paid for better personal and environmental hygiene, for comparative freedom form dangerous and other infectious diseases, for an improved standard of living and for increasing longevity, is the increasing vulnerability of the delicate tissues of the heart and blood vessels to the stresses and strains of modern life, to the complexity and pace of every-day life, and to the worry and anxiety associated with the many difficult and trying situations that arise nowadays in our private and public lives.

In the circumstances the most that can be done by way of preventive measures is the extension and intensification of the health education campaign against syphilis, alcoholism, and other systemic diseases, the early and thorough treatment of the chronic diseases referred to above, coupled with the elimination and prevention of those conditions, environmental and personal, that favour the propagation and spread of infectious diseases. Health education would also be able to assist victims of these diseases to a way of life that would conduce to their greater happiness and usefulness as citizens, as it is a well known fact that these diseases are most prevalent and do their greatest damage at those age periods of life when the citizen can be of the greatest use to the community by reason of his wisdom, knowledge and experience, and if nothing else it would help to postpone at least for some time the fatal day.

In the year under report cardiac and vascular diseases claimed 278 victims, the largest number attributable to one single group of diseases.

Examination of the table listed hereunder shows that the older age periods of 41–60 and over 60 years bore the brunt of the attack with 54 and 205 deaths respectively, and the fact clearly emerges that the older the tissue the more susceptible it becomes to these diseases. Of the forms of cardiac and vascular diseases that are responsible for the highest mortality it is again the same old picture that presents itself, viz. arteriosclerotic and degenerative heart disease is, par excellence, the greatest "killer."

Deaths from Cardiac and Vascular Diseases in Age Groups, 1958

Forms	0–20 years	21–40 years	41–60 years	Over 60 years	Total
Rheumatic fever	—	—	—	—	—
Chronic rheumatic heart disease	1	1	—	1	3
Arteriosclerotic and degenerative heart disease	—	12	29	147	188
Other diseases of the heart	1	1	7	17	26
Hypertension with heart disease	—	1	11	25	37
Hypertension without mention of heart ...	—	2	5	7	14
Diseases of arteries	—	—	2	8	10
Other diseases of circulatory system ...	—	—	—	—	—
Total	2	17	54	205	278

Cancer and Other Malignant Diseases

It has been the custom for years now to devote a special section in these reports to cancer and other malignant diseases seeing that these diseases, like the deaths attributable to cardiac and vascular diseases, appear to be giving rise to a greater and greater mortality in the Urban Sanitary District. In fact the number of deaths registered in the year under report viz. 119, represent the highest number ever recorded since 1917, when the Public Health Ordinance, Ch. 12. No. 4 divided the country into urban, rural, and port sanitary districts and the Local Sanitary Authority of the City of Port-of-Spain was established.

Greater accuracy in diagnosis and an increasing expectation of life are very likely responsible, in part, for the increased number of cases that are coming to light nowadays, but that cannot be, and certainly is not, the complete picture though it must be admitted that the older the tissue the more vulnerable to cancer and malignant disease it becomes.

Seeing that the specific cause of cancer still remains obscure in spite of much research and experimentation, it is not possible to apply any preventive measures that can be considered effective, but a health education campaign directed to the education of the public as to the high mortality, about 100 per cent., associated with this group of diseases, and as to the urgent necessity to treat every small lump or indolent ulcer with the respect it deserves and to seek early treatment by surgery, x-rays or radium, would pay dividends and help to a greater understanding and appreciation of the toll of mortality that cancer and other malignant diseases are exacting from the community.

Analysis of the tabulated statement listed hereunder shows that in males the organ most affected is the stomach, with 9 deaths, and in females the uterus, with 24 deaths, and that the mortality rate in women was one and a half times as great as that in men.

Cancer and other Malignant Diseases, 1958

Malignant Neoplasms	Deaths	
	Males	Females
Malignant neoplasm of bucca, cavity and pharynx	1	1
Malignant neoplasm of oesophagus	4	2
Malignant neoplasm of stomach	9	10
Malignant neoplasm of intestine, except rectum	5	6
Malignant neoplasm of rectum	3	2
Malignant neoplasm of larynx	2	—
Malignant neoplasm of trachea and of bronchus and lung not specified as secondary	3	—
Malignant neoplasm of breast	—	10
Malignant neoplasm of cervix uteri	—	12
Malignant neoplasm of other and unspecified parts of uterus	—	12
Malignant neoplasm of prostate	2	—
Malignant neoplasm of skin	—	—
Malignant neoplasm of bone and connective tissue	1	—
Malignant neoplasm of all other and unspecified sites	16	14
Leukaemia and aleukaemia	2	2
Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	—	—
Total	48	71

Deaths from Cancer and other Malignant Diseases, 1918-58

Period	Deaths	Rate per 100,000 Population
Yearly Averages:		
1918–22	44.4	67
1923–27	45.6	71
1928–32	44.6	65
1933–37	556.8	76
Average 1918–37	47.9	70
Yearly Average 1938–42	75.4	82
1943	88	86
1944	84	81
1945	80	75
1946	79	78
1947	75	78
1948	87	88
1949	91	90
1950	91	89
1951	103	94
1952	89	90
1953	113	102
1954	96	84
1955	104	89
1956	104	87
1957	102	84
1958	119	98

SANITARY ADMINISTRATION

Staff

During the year under report the establishment of the Public Health Department was fixed at 208 employees of which 53 were the members of the permanent pensionable staff, and 155 members of the non-pensionable daily paid staff.

But at the end of the year 1958, of the permanent pensionable staff of 53, only 45 were actually permanent employees ; 5 posts of sanitary inspector were vacant, 2 of these vacant posts being filled by men in a temporary acting capacity, and 3 posts remained unfilled, there being no suitable and qualified persons to fill these even in an acting capacity. The three (3) vacant posts of health visitor again could not be filled, because of the unavailability of qualified staff to fill them. As a matter of fact ever since they were first established in 1951 these posts have not been filled because no health visitors could be found to fill them ; no sooner does a nurse qualify as a health visitor than she is immediately absorbed into the service of the Central Government, who also themselves are short of suitable and qualified staff. The shortage of suitable and qualified staff is felt particularly among the sanitary inspectors who again, as soon as they get qualified, are snapped up by the Central Government.

Of our full complement of 34 sanitary inspectors five vacancies could not be filled because of the lack of suitable and qualified staff but two of these posts were filled temporarily by retired inspectors who were recalled to duty and appointed on a month-to-month basis.

For the purpose of "inspection of the district with a view to ascertain what nuisances exist calling for abatement" the City was again divided into 18 sanitary districts with a sanitary inspector in charge of each district.

The number of premises in these sanitary districts varies depending upon the location, size of premises, types of building, but they range from 700 to 1,000 for each inspector who is required to do 25 house-to-house inspections a day, and to inspect each and every premises in his district at least once in six weeks.

When in the district the sanitary inspector is in full and complete charge of all the public health services that are performed in the district viz. anti-rat, anti-mosquito, anti-rabies, disinfection, &c., and he has, as his duty, to control and supervise the groups who operate these services and to consult with and report to, the special inspector who is in charge of the whole unit as to the efficiency of the measures being undertaken and as to the ability, conduct, and discipline of the men who are working in his district. He is in fact responsible to the Chief Sanitary Inspector and eventually to the Medical Officer of Health for the health and the state of sanitation in his district.

Eight sanitary inspectors, who, under normal circumstances when the full complement of staff is available, are usually senior inspectors of some maturity and in good standing, with the knowledge, experience, and the necessary administrative ability to direct, control and supervise a special unit, were employed in the year under report in the execution of duties of a special nature: One such inspector is the Buildings Inspector concerned with building plans of all kinds and in addition inspects, examines, and reports on layouts, leases, assignments and kindred matters. It is his duty to see to it that the building is erected in accordance with the approved plan, especially that part of the building that is of special concern to the Department like doors, windows, ventilation openings, distance from boundaries, and last but not least the sanitary conveniences. One inspector, the

Anti-Rat and Anti-Bat Inspector, is in charge of and plans, directs, supervises and controls the work of the Anti-Rat and Anti-Bat Unit. Three inspectors are assigned to food inspection work, one of whom is the Food Inspector who is the officer in charge, and who plans, directs, supervises and controls the work of the other two inspectors. One of these inspectors is stationed at the King's Wharf and Customs and it is his duty to inspect and examine food of all kinds, but particularly tinned and perishable food, on its arrival at the port; the other inspector is engaged in the inspection, examination, and registration of food places and food handlers throughout the length and breadth of the City, but in this work, which is of an onerous nature, he is actively assisted by the Food Inspector who himself examines the food places preparatory to registration, leaving the registration of itinerant vendors to be his special assignment. One inspector, who has now been appointed the Health Education Officer of the Department, plans, directs, controls and supervises the health education services and the personnel engaged thereon when the officer is actively engaged in a programme, usually in the evenings. The Senior Sanitary Inspector (outdoor) is in charge of the water supply service and is also the Factories Inspector. He is in charge of water sampling and is also engaged in the inspection and control of the various catchment areas of the river and well sources of water supply, in addition to his routine duties of planning, directing, and supervising the work of a certain number of the District Sanitary Inspectors.

The two overseers and three sub-overseers of the Department are attached to and assist in the planning and execution of the work of, the non-pensionable staff in addition to supervising and controlling them. Their duty is also to instruct and train newcomers to the Department in the particular work they are called upon to perform before they are actually posted to do field work. One overseer and one sub-overseer are attached to the Anti-Rat Unit comprising one timekeeper (for the whole of the non-pensionable establishment), one checker, eight foremen, with nine Grade A trappers and 20 Grade B trappers, and to the Anti-Rabies Unit of one checker, four trappers Grade A and one trapper Grade B.

One overseer and one sub-overseer are attached to the Anti-Mosquito Unit comprising two checkers, one recorder, two foremen, nine supervisors, together with 17 Grade A *aedes* inspectors and 36 Grade B *aedes* inspectors.

One sub-overseer is in charge of the Disinfection Unit and plans, directs, and controls the operations of this Unit which comprises two spraymen, and also the work of the Public Conveniences Unit, transferred from the City Engineer's Department in 1943, which comprises fourteen caretakers.

The unit organised by the Corporation for the emptying of cesspits, cesspools and septic tanks, and which was transferred to the Public Health Department in 1947, comprises 1 cooper, 1 caretaker and 2 men on the " deadman " at the Mucurapo Pumping Station, 12 cleaners, 2 chauffeurs, 1 checker, 1 carpenter and mason, and 1 carpenter on a part-time basis, all under the care, direction, and control of the Supervisor of the cleaning of cesspits.

All told in the year under report the outdoor staff of the Department comprised 27 sanitary inspectors, 2 overseers, 3 sub-overseers, 1 supervisor of the cleaning of cesspits and 155 miscellaneous workers on the non-pensionable staff all under the care, direction, supervision and control, of the Chief Sanitary Inspector.

The indoor staff, i.e. employees who work for the greater part of the day in the Public Health Department itself, comprised in the year under report 1 senior sanitary inspector (indoor), 1 senior clerk, 1 first class clerk, 1 second class clerk, 1 scientific assistant, 3 female second class clerks and 1 messenger all under the direction, care, control and supervision of the Deputy Chief Sanitary Inspector (indoor).

The work of the indoor staff which, let it be stated, is equally important and just as onerous as the work of the outdoor staff, is concerned with correspondence of all kinds, messages, complaints, verbal and written reports, the preparation and issuing of licences, certificates of registration, the distribution of food badges, the directing and preparing of contacts of cases of infectious diseases and other applicants for inoculation, the keeping and replenishing of equipment, supplies and records relative to preventive inoculation, the keeping of the various registers, books, minutes, &c. of the Department, and the preparation of the files and the preservation of the filing system ; the sorting, coding, and classifying of the various returns that reach the Department, the collection and compilation of vital statistics, the calculation of the various rates that concern the Urban Sanitary District, the preparation of monthly, quarterly and annual reports, and last but not least the checking and verifying of the pay sheets of the non-pensionable staff, the preparation of the salary sheets of the pensionable staff, the keeping and bringing up-to-date of the various vote books of the Department, in fact all that appertains to the financial transactions and records of the Department. In addition the two sanitary inspectors on the indoor staff are liable to be called upon and usually are called upon, to attend to urgent business of a sanitary nature anywhere in the City during the course of the day when the district sanitary inspectors are not available, particularly when the question of urgent nuisance that needs immediate abatement is concerned.

Inspection of Premises, &c., by Sanitary Inspectors, 1958

Average Monthly No. of Visits to Dwellings, Shops and other Premises 7,383

Inspection of Stores, Shops, &c.

	Average Monthly No. of Visits		*Average Monthly No. of Visits*
Provision and Meat Shops	171	Cinemas	4
Provision Stores	27	Sweet Drink Carts	47
Restaurants and Cookshops	62	Dairies and Cowsheds	35
Bakehouses	26	Stables	42
Bread Depots	13	Goat Pens	31
Cake and Ice Cream Shops	164	Aerated Water Factories	4
Fry Shops	13	Soap Factories	2
Hotels	11	Other Factories	49
Markets	5	Schools	32
Spirit Shops	39	Common Lodging Houses	6
Ice Cream Carts and Pails	77	Barber Shops	23
Cake Trays and Baskets	183	Dye works	2
Provision Trays and Baskets	124	Laundries	26
Bread Carts and Baskets	27	Garages	27
Fresh Fish Trays	19	Tanneries	3
Oyster Vendor's Baskets	19	Public Urinals	4
Plantain Carts	1	Boats	10

Results of Notices and Verbal Directions—1958

	Constructed, installed or provided	Repaired	Cleansed	Painted	Elimi-nated	Lime-washed	Oiled
Yard pavements	73	159	—	—	—	—	—
Depressions in yards	—	—	—	—	84	—	—
Yards	—	—	6,602	—	—	—	—
Drains, sinks, gullies, washing troughs, &c.	323	630	7,470	—	—	—	—
Lavatories, sewer basins, flush tanks, urinals, bath rooms, &c.	185	303	1,275	—	—	—	—
Privies	97	798	—	—	—	449	—
Cesspits	81	204	1,821	—	—	—	30
Manure Heaps	—	—	—	—	318	—	—
Rat Holes	—	—	—	—	125	—	—
Tree Shade, Overgrowths of bush ...	—	—	—	—	1,327	—	—
Dustbins	1,120	134	694	—	—	—	—
Dustbin covers	533	—	—	—	—	—	—
Shops, Parlours, Restaurants, Bakehouses, Hotels, &c.	—	163	2,729	479	—	492	—
Aerated Water Factories	—	—	24	—	—	2	—
Bread Carts	—	—	—	—	—	—	—
Barracks, Common Lodging Houses ...	—	27	24	6	—	20	—
Garages, Kitchens	—	46	—	—	—	71	—
Cowsheds, Stables	—	21	164	—	—	54	—
Tanneries, Soap Factories, &c.	—	—	—	—	—	—	—
Close-boarding, Ventilation of Houses ...	—	—	—	—	—	—	—
Barber Shops and other Workshops ...	—	—	42	22	—	—	—
Glass Cases and Covered Trays ...	421	449	—	539	—	—	—

Reports to Water and Sewerage Department—1958

Reports	*Total*
Leaks, defective taps, chokes, &c.	1,078

Anti-Rabies Measures—1958

Trapping, Etc. of Bats

No. of locations for roosts of Bats	12,351

Bats Caught

Artibeus lituratus palmarum (Trinidad Fruit Bat)	117
Artibeus jamaicensis trinitatis (Jamaica Fruit Bat)	199
Molossus m. major (Small Free-tailed Bat)	78
Carollia p. perspicillata (Common Leaf-nosed Bat)	21
Glossophaga longirostris major (Greater Long-tongued Bat)	1
Glossophaga s. soricina (Long-tongued Bat)	18
Glossophaga m. major (Greater Long-tongued Bat)	2
Phyllostomus d. discolor (Lesser Spear-nosed Bat)	8
Micronycteris m. megalotis (Little Big-eared Bat)	2
Centurio senex (Wrinkled face Bat)	2
Saccopteryx leptura (Sac-winged Bat)	2
Noctilio l. leporinus (Fish eating Bat)	1
Promops centralis (Domed-palate Mastiff Bat)	1
Aribeus c. cinereus (Pigmy Fruit Bat)	1
Tadarida europs	1
	454*

*Bats Caught Outside City Limits

Belmont Valley Road ...	...	(18) *Carollia p. perspicillata* (Common Leaf-nosed Bat)
Government House ...	...	(19) *Molossus m. major* (Small Free-tailed Bat)
Powder Magazine, Cocorite	...	(2) *Micronycteris m. megalotis* (Little Big-eared Bat)
Powder Magazine, Cocorite	...	(2) *Saccopteryx leptura* (Sac-winged Bat)
Fort Picton Cave ...	...	(2) *Carollia p. perspicillata* (Common Leaf-nosed Bat)
Emperor Valley Zoo ...	...	(8) *Phyllostomus d. discolor* (Lesser Spear-nosed Bat)
Emperor Valley Zoo ...	...	(2) *Glossophaga s. soricina* (Pallas Long-tongued Bat)
Emperor Valley Zoo ...	...	(1) *Carollia p. perspicillata* (Common Leaf-nosed Bat)
Botanic Gardens ...	...	(8) *Aribeus jamaicensis trinitatis* (Jamaica Fruit Bat)

Building Plans, Etc.—1958

Reports made by the Public Health Department were as follows :—

On plans, &c., for reconstruction or reconditioning of buildings ...	626
On applications for leases of land in Woodbrook and Gonzales Place ...	98
On premises in which building operations were in progress	102
On application for certificates of completion of buildings	70

Cleaning of Privies, Etc.—1958

Under the Public Health Ordinance, Ch. 12. No. 4, Section 64 (1) (*c*), Cesspits, Cesspools and Septic Tanks were cleansed as follows :—

East Dry River	712
Belmont	623
St. James	297
Woodbrook	189
	1,821
Out Districts	—

Outstanding cesspits up to 31st December, 1958 numbered 22

Average cost per cesspit emptied : $27.24

Prosecutions—1958

CASES DETERMINED BY THE MAGISTRATE

Offences	*No. of Cases*	*Results Total Fines, &c.*
Failing to comply with nuisance notices	2	Fined $18.00
	15	Reprimanded
	68	Adjourned
	3	Dismissed
	8	Fresh Summonses
	6	Withdrawn
	102	
Breaches of Sale of Foodstuffs Bye-laws	38	Fined $142.80
	19	Reprimanded
	65	Adjourned
	1	Dismissed
	27	Withdrawn
	52	Fresh Summonses
	202	
Breaches of the Yellow Fever Regulations	1	Adjourned
Failing to provide a receptacle for House Refuse	1	Dismissed
Failing to provide a sufficiency of privy accommodation	1	Reprimanded
	3	Adjourned
	1	Withdrawn
	7	
GRAND TOTAL	311	

Summary

Cases	
40	Fined $160.80
35	Reprimanded
137	Adjourned
5	Dismissed
34	Withdrawn
60	Fresh Summonses
311	

Leave of Absence—1958

	Vacation Leave No. of Days	*Sick Leave No. of Days*	*Local Leave No. of Days*
Aberdeen, K.—2nd Class Clerk	68	—	5
Adams, R.—2nd Class Clerk	21	13	—
Assing, C. C.—Deputy Chief Sanitary Inspector (Outdoor)	—	—	10
Boucaud, R.—Sanitary Inspector	—	17	2
Boxill, E.—Senior Sanitary Inspector (Indoor)...	63	—	4
Brathwaite, E.—Sanitary Inspector	28	14	—
Callendar, E.—Sanitary Inspector	56	14	—
Cameron, I.—Sanitary Inspector	21	14	—
Carpette, O.—Overseer	—	—	5
Castello, C.—Sub-Overseer	28	—	5
Davidson, C.—Sanitary Inspector	—	—	12
De Four, H.—Health Education Officer ...	—	—	14
Dubois, C.—Sanitary Inspector	42	—	—
Edwards, R.—Sanitary Inspector	14	14	—
Forde, G.—Sanitary Inspector	112	—	—
Goodridge, C.—Messenger	21	—	5

Leave of Absence—1958—*Continued*

	Vacation Leave No. of Days	*Sick Leave No. of Days*	*Local Leave No. of Days*
Greenidge, St. Aubyn—Sanitary Inspector ...	21	—	—
Hinkson, G.—Sanitary Inspector	62	—	—
Hodge, L. S.—Sanitary Inspector	56	—	—
Holdip, M.—Sanitary Inspector	—	—	5
Joseph, A.—Scientific Assistant	—	—	6
Joseph, V.—1st Class Clerk	92	—	—
Khan, V. S.—Sanitary Inspector	90	7	5
Langton, E.—2nd Class Clerk	—	5	5
Marcial, R. S.—Sanitary Inspector	56	—	—
Mitchell, K. I.—Sanitary Inspector	21	14	—
Neranter, A. K.—Sanitary Inspector ...	—	—	7
Nurse, G. W.—Sanitary Inspector	90	—	—
Parris, J. E.—Overseer	84	—	8
Perryman, V.—2nd Class Clerk	21	—	5
Philip, O. M.—Sanitary Inspector	—	20	—
Rivers, F. B.—Senior Sanitary Inspector (Outdoor)	—	—	4
Romain, A. B.—Deputy Chief Sanitary Inspector (Indoor)	—	—	7
Samm, M.—Sub-Overseer	21	—	—
Sampson, A.—Sanitary Inspector	—	—	14
Seon, F. E.—Sanitary Inspector	—	14	14
St. Cyr, H.—Acting Sanitary Inspector ...	14	—	—
Turner, K. McD.—Sanitary Inspector ...	49	7	—
Turney, H.—Sanitary Inspector	28	—	—
Wilson, A.—Senior Clerk	—	—	10

	Special Leave
Adams, R.—2nd Class Clerk	40

	Study Leave
Boucaud, R.—Sanitary Inspector	120

Staff—Resignations, Study Leave

Resignations

Mr. B. Rauceo, Supervisor, resigned from the Service of the Corporation as from 12th February, 1958. Unfortunately for him, it happened that the date of the confirmation of his appointment, 1st January, 1958, came after he had already attained his sixtieth birthday, the age limit, and he was compelled to resign. Not having taken Vacation Leave during the Acting period, the Council granted him forty-two (42) days' leave pay prior to retirement.

Study Leave

Grade B Sanitary Inspector R. Boucaud having completed his course of study on the 30th April, 1958, at Guelph School of Agriculture, Guelph, Ontario, Canada, resumed duties in May, 1958.

Financial

Revenue and Expenditure, 1956-58

	1956	1957	1958
Revenue	$ c.	$ c.	$ c.
Revenue collected by the Health Department ...	1,283 77	1,012 28	1,218 49
Expenditure			
Salaries and Allowances	144,164 77	141,223 46	150,743 19
Arrears of Increments on Salary due S.I. O. M. Phillip for 1957	—	—	240 00
5 per cent. Bonus to Corporation Employees (Staff Public Health Department) for 1957 and 1958	—	—	11,364 05
Difference on Arrears Cost of Living Allowance from 1st January to 31st December, 1957 (N.P. Employees)	—	—	7,774 87
Aedes Eradication Campaign	—	—	23,683 88
Replacement of Jitney	—	—	4,315 28
Back Pay for 1954/1955 (Staff)	38,820 56	—	—
Arrears of Cost of Living Allowance for 1956/1957 (Staff)	—	4,260 43	—
Arrears of Increments on Salaries to newly appointed Employees (Staff)	—	720 00	—
Wages and Allowances	140,219 92	144,419 16	184,281 95
Maintenance, Materials, &c.	35,771 47	45,851 96	49,000 75
	358,976 72	336,475 01	431,403 97
Disposal of Night Soil	8,004 13	8,145 67	11,659 60
Emptying of Cesspits	40,486 35	*43,924 35	†49,602 83
Total	$407,467 20	$388,545 03	$492,666 40

*Emptying of Cesspits—amount recoverable from house owners $17,718.00 in 1957.
†Emptying of Cesspits—amount recoverable from house owners $16,437.25 in 1958.

ACKNOWLEDGMENT

The work of the Public Health Department continues to increase every year with the increasing population of the City and with the need for more efficient, more extensive and more varied public health services covering a wider field.

Due to a large extent to the greater health consciousness aroused by our health education programme, the residents of the City are demanding and expecting better general and personal health, a higher standard of sanitation and environmental hygiene and more readily available and prompt services, efficiently executed. Add to this the fact that we have for years now been desperately short of properly qualified and dependable technical staff, it is clear that were it not for the devotion to duty, and the loyalty, generally, of the staff, pensionable and non-pensionable and to the conscientious day to day routine performed under the able guidance, direction and leadership of the Chief Sanitary Inspector, Mr. O. E. Forde, Cert. R. San. I., and the Deputy Chief Sanitary Inspector (indoor) Mr. A. Romain, Cert. R. San. I., we certainly would not have been able to maintain our services at a satisfactory level and there would without doubt have been a deterioration of the public health.

I am convinced that the employees of the Public Health Department, taken as a whole, are sensible of the great responsibility that is theirs, that they have the welfare and the prestige of the Department at heart, and that they have all spared no effort in the year under report to render a public service which can truly be considered the greatest of all services, i.e. that of maintaining and improving the health and sanitary state of the Urban Sanitary District, without which all the other services of the Corporation would certainly be a nullity.

For this I am deeply grateful and I seize this opportunity once more to commend their services to the favourable notice of the Local Sanitary Authority.

Whilst deeply appreciative of their work I am not unmindful of the disabilities they suffer as compared with the Sanitary Inspectors in the employ of the Central Government, and I am to request once again the Local Authority to make haste to make available to the Sanitary Inspectors of the Corporation those amenities and facilities enjoyed by their confreres so that we may be able to have in

our employ a capable and contended staff, to be able to attract Sanitary Inspectors of the highest calibre to the Department, and to be able to retain staff whom we have recruited and trained to be efficient practical inspectors, often at great expense.

During the year under review we lost by resignation due to his having attained the age limit Mr. B. Rauceo, ex-Supervisor of the cleaning of cesspits, who unfortunately had to be retired before he was actually confirmed in the post. He was one of those workers, who as checker of the Night Soil Unit, had rendered yeoman service by his character, conduct, and by his ability to understand, direct and control workmen, who, to say the least are not easy, either to get along with or to satisfy, and who was recommended, as it is our duty and our custom to do when we have good, capable, and competent staff on the non-pensionable establishment, to fill the permanent pensionable post of Supervisor of the cleaning of cesspits. He lived up to all our expectations and the thanks of the Department go out to him; we wish him good health and a long and happy retirement.